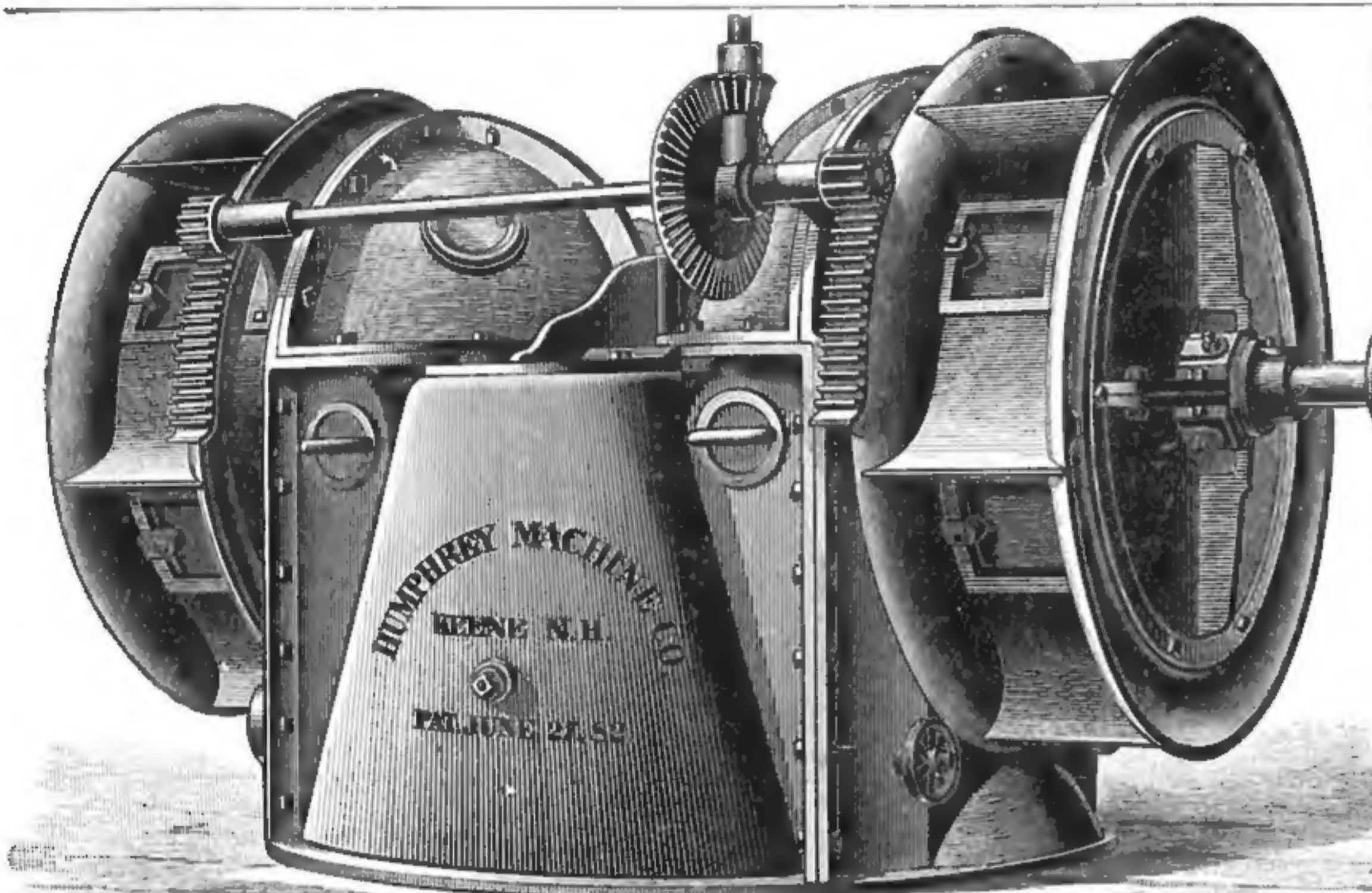


PUBLISHED EVERY MONDAY MORNING.

VOL. XXIII. No. 8.

BUFFALO, N. Y., OCTOBER 20, 1890

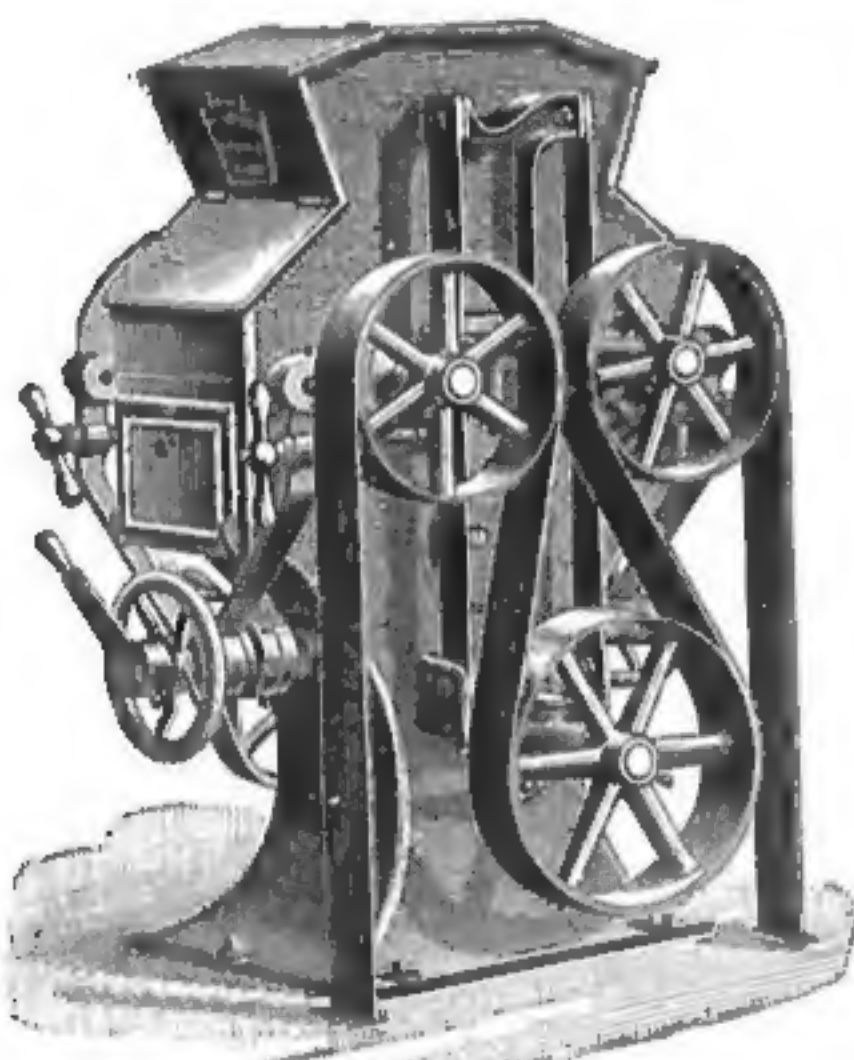
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On Horizontal Shaft. Saves cost, annoyance and loss of power incident to use of gears. Affords more available power from water applied at full or part gate than any other. The cheapest, best and most desirable Water Wheel yet produced.

EFFICIENCY,
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EXCELLENCE **FULLY GUARANTEED.**
Humphrey Machine Co
KEENE, - - N. H.



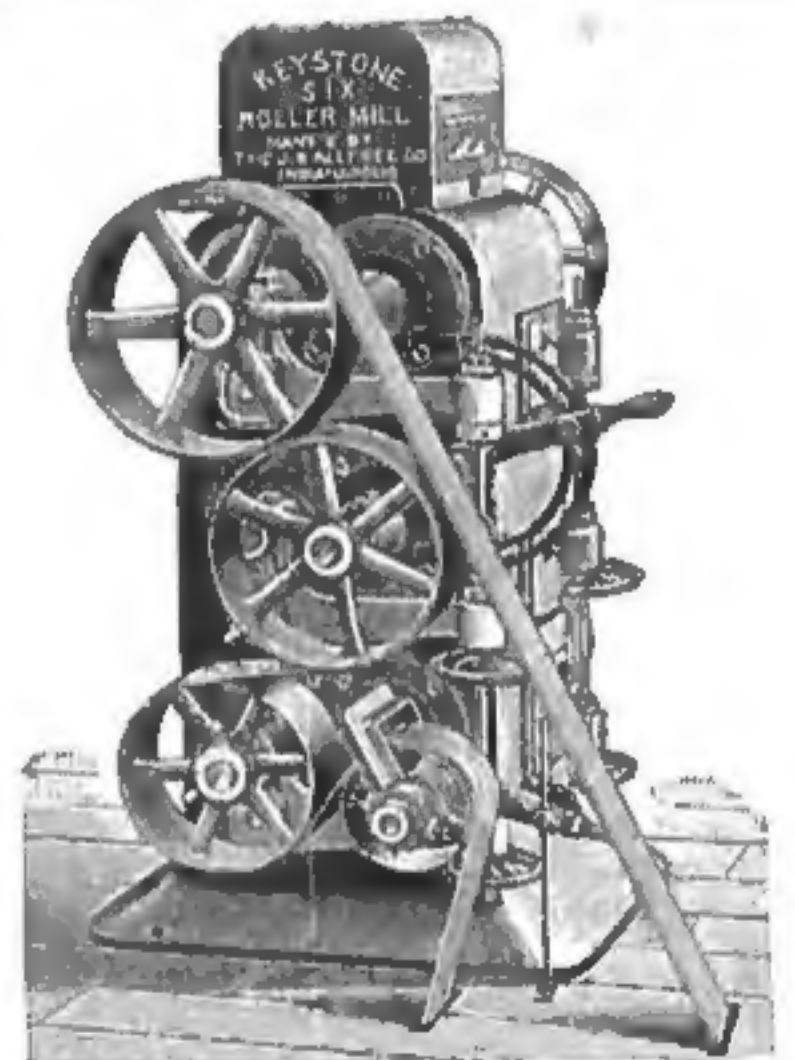
"Keystone" 4-Roller Wheat Mill.

Flour Mills. Corn Mills.

Send for Circular of our New 6-Roller
Corn and Feed Mill.

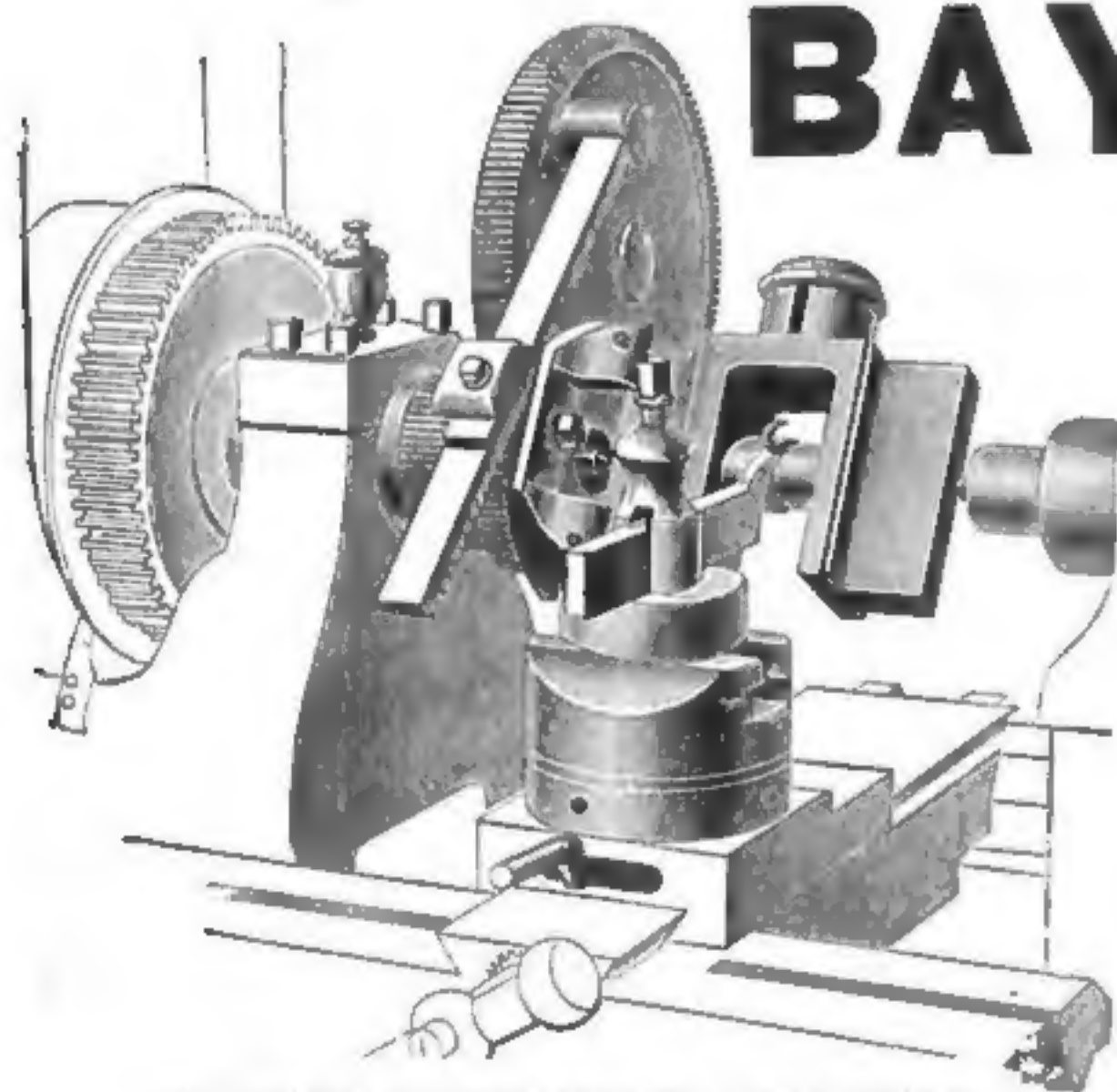
Entire Belt Drive.
Positive Differential.
Automatic Vibratory Feed.
Large Capacity.

Easily Operated.
Great Strength and Rigidity.
Simple Adjustments.
Perfect Construction.



"Keystone" 6-Roller Corn & Feed Mill.

ADDRESS THE J. B. ALLFREE CO., 76 to 86 Shelby Street, INDIANAPOLIS, IND.



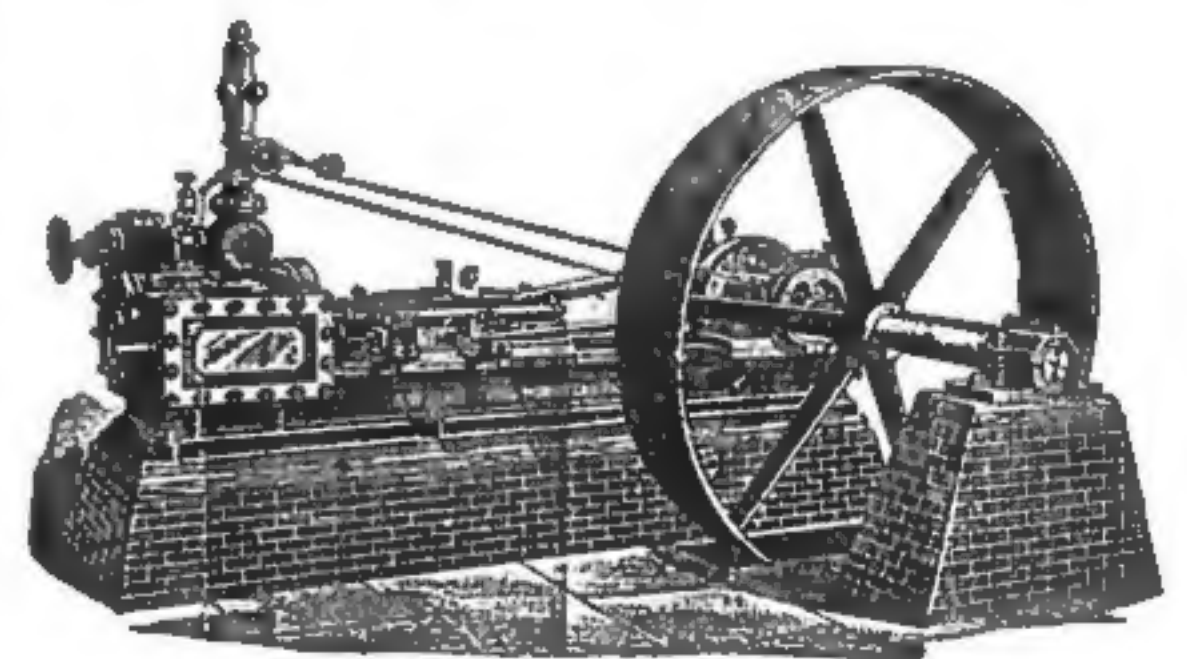
PATENT CROSS-HEAD MACHINE.

BAY STATE IRON WORKS

— MANUFACTURERS OF —

Engines, Boilers & Hoisting Machines

Also the Patent Cross-Head Machine and Acme Cube Pipe Tongs. We make either Center or Side Crank Engines, on same bed. Make engines from 5 to 250 Horse-Power. Have over 3,500 Engines and Boilers and over 1,000 Hoisting Machines in use, and all giving good satisfaction. Send for Catalogue and Prices.



HORIZONTAL ENGINE.

Noble & Hall, Box 462, Erie, Pa.

OFFICE OF CASE MANUFACTURING COMP'Y COLUMBUS, OHIO.

The Case Roller Mills. Over 14,000 Pairs in Use.

PLEASE READ OUR DESCRIPTION OF THEM, EVERY STATEMENT OF WHICH IS ABSOLUTELY TRUE.

PLEASE READ WHAT MILL OWNERS SAY ABOUT THEM.



The accompanying cut is a correct illustration of our latest improved Four Roller Mill. For fine work, great durability, simplicity, and general excellence, they stand "head and shoulders" above all others.

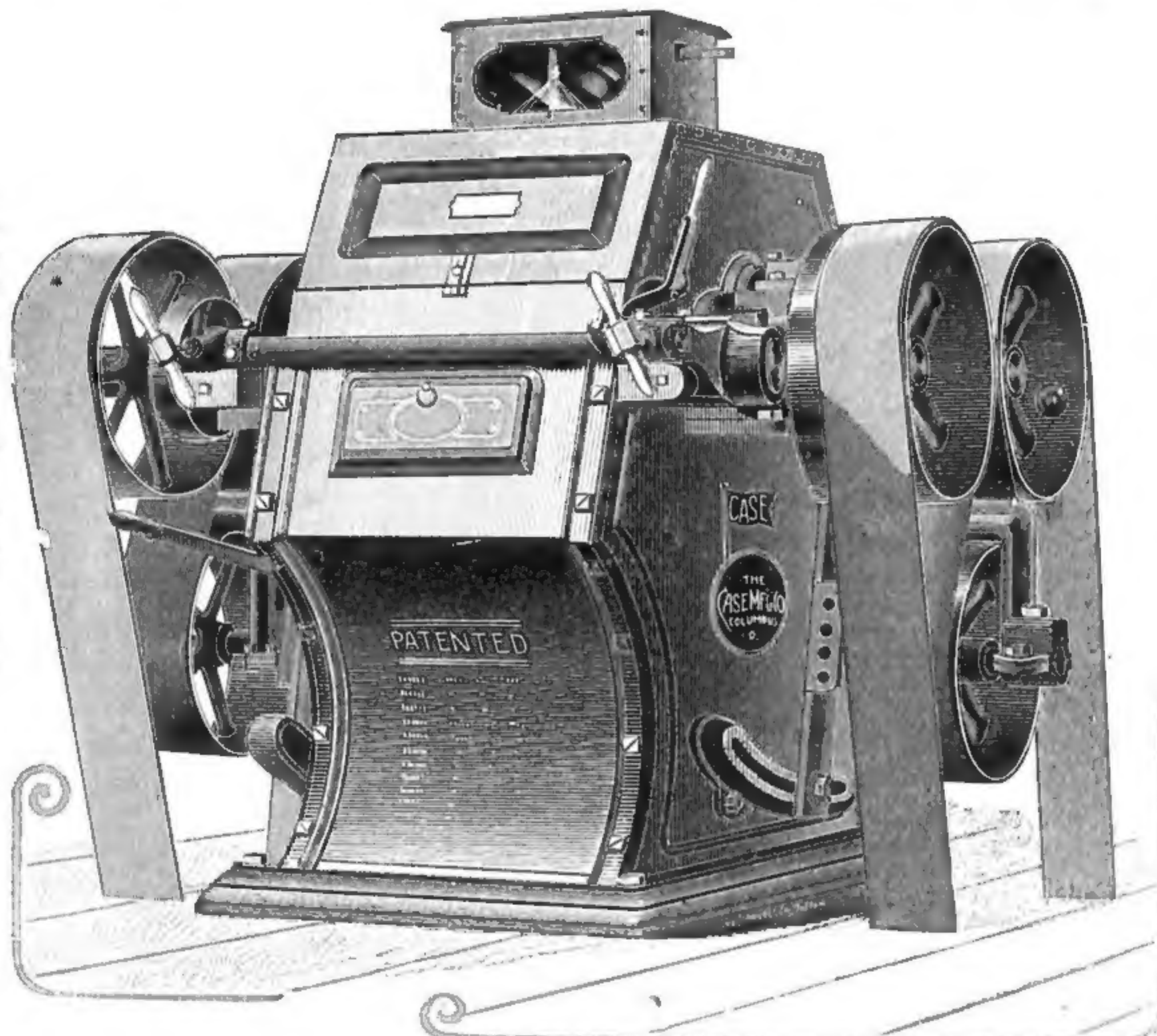
The frame is of iron with a heavy iron base.

The wood-work in top is of select cherry and black walnut, carefully shellacked and varnished.

The handles of adjusting screws and levers are finely nickel plated.

The joints are tight and dustless.

The adjustments easy, simple and perfect.



The roll bearings are wide and finely babbitted.

The belt drive is positive—no little short belts to slip.

The door for examining stock is a great convenience.

The arrangement for leveling rolls, simple and accurate.

The rolls can be thrown apart their entire length by one movement of the lever, and brought back again to original position, requiring no re-setting or experimenting.

Each machine is provided with our AUTOMATIC VIBRATING FEED, which requires no attention, and never fails to spread the feed the entire length of the rolls.



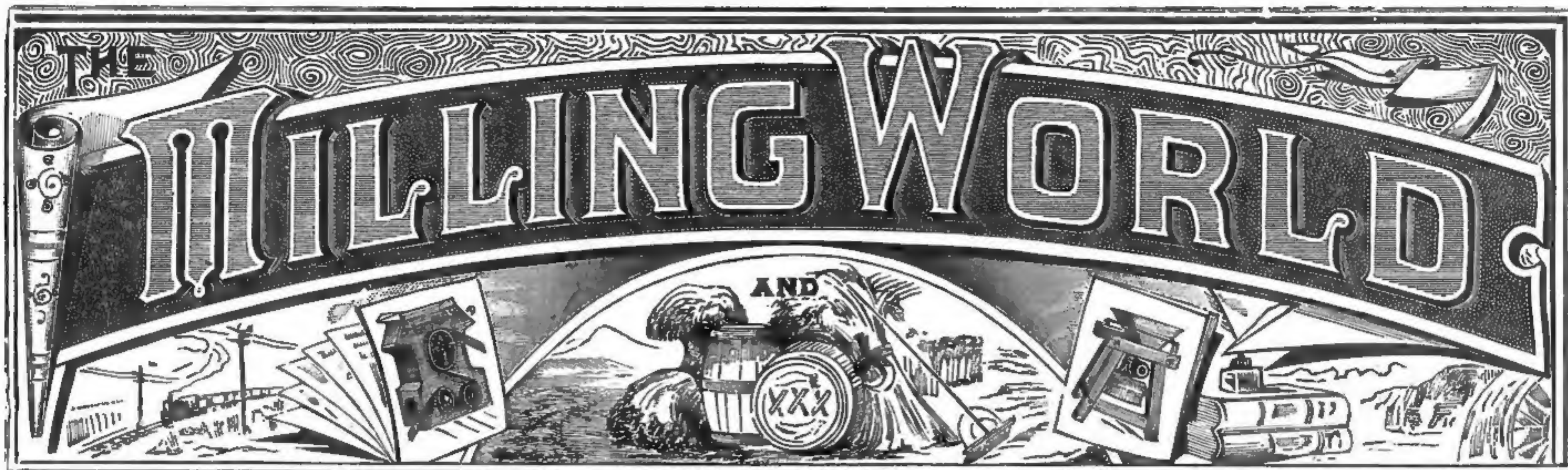
LISTEN! MICHIGAN MILLERS TALKING NOW.

CHARLOTTE, MICH., AUG. 5, 1890.

MESSRS. CASE MFG. CO., COLUMBUS, O.

Gentlemen: The mill is running fine. We are enjoying quite a fine little trade. Already have put over twenty tons of flour on the market here since we started the 7th of July, and it is giving elegant satisfaction. Every one who has seen our outfit pronounces it A 1, and the Case Automatic Feed can't be beat. In fact the Rolls are models of perfection. We are making a close finish and placing our goods alongside of the long system mills, carrying off the cake. We are highly pleased with the millwright work, and find your Messrs. McKenie and Shough congenial gentlemen to do business with.

Very truly yours, PERKINS & MOON.



CHRONICLE OF THE GRAIN AND FLOUR TRADE

PUBLISHED EVERY MONDAY MORNING.

VOL. XXIII. No. 8.

BUFFALO, N. Y., OCTOBER 20, 1890.

\$1.50 PER YEAR.

A CORRESPONDENT wishes to know "what THE MILLING WORLD thinks of the Pennsylvania Millers' State Association's attack on the short system of milling." THE MILLING WORLD, remembering how much adverse criticism the short system overcame or contended with in establishing its claim, thinks that, established firmly as it now is, it will take a great deal of adverse criticism and assertion to overthrow it.

CANADA will make a determined bid for next season's European emigration. Delegates representing the various foreign Colonies in Manitoba and the Northwest will be sent to their native countries this autumn to point out the advantages of settlement in that country. Free transportation will be given to them by the Canadian Pacific Railway steamship lines. So says the London, England, "European Mail" in a late number. With Sir John A. Macdonald denouncing and decrying the "vicious" immigration into the United States, and ridiculing the "fierce democracy" that must be the inevitable fruit of such immigration, what can Canada want of European emigrants? Canada needs population, and needs it desperately, and it also needs something that will enable it to keep its natives from coming to the United States, and to keep its assisted, invited, free-gratis European immigrants from coming to this country after a sojourn of one or two years in Manitoba and the Northwest. The latter need is the dominant one. Canadians in the United States are almost as numerous as they are in Canada. A very large proportion of those Europeans who have been hornswoggled into going to Manitoba finally cross over into Dakota and Minnesota, and "still there's more to follow." Of course the free-gratis delegates to Europe will paint in rainbow colors the 40-bushel-per-acre wheat yields, the frostless winters, the perfect summers, the banana and pine-apple characteristics, the blizzardless, cycloneless, equable climate, and all the other enticing meteorological hereditaments and appurtenances of Manitoba, and the circulars and orations will teem with gloomy pictures of the dreary desert called the United States, so that the comparison shall make Manitoba appear an Eden, and the United States a veritable Sahara. Intending emigrants may be duped, but the deception will be learned as soon as the victims have taken a catch-as-catch-can lock on the prairie outdoor conditions in North America above the United States line, and, as usual, they will hasten to cross that line. It is a desperate game and a played-over and played-out game.

MEMBERS of the so called Millers' National Association in the United States are not in the habit of accepting suggestions, and it is a matter of regret, both for millers who would join an association of the right character, and for milling journalists who would gladly advocate such a body, that the managers of the American organization refuse to mold it on the lines of practicability, progress, instruction, science and utility. Were they to do this, they would at once find a united milling press supporting them, members pouring in, and influence infinitely extended in every way. They might with propriety and profit imitate the example of the National Association of British and Irish Millers, in whose conventions the practical side of flour-making is uppermost,

and in which the miller of limited experience reaps the benefit of the miller of wider experience, together with the valuable assistance of scientific men who have made a close study of grain-growing, flour-making, bread-making and all cognate and closely allied industries. The British millers have always made their association intensely practical, and at the same time they have always given due attention to things that do not belong directly to the making of flour. Since the Edinburgh convention in July the British body has gained 46 members, and at the meeting of the "Council" of the association in September, in London, several new steps were instituted to popularize the association. They are trying to draw in the "small" millers, and they have a rule which reads as follows: "Except in the case of members of Local Associations, as provided in Rule 5, an annual subscription of one guinea, due on the 1st of May in each year and paid in advance to the Secretary, shall entitle one person or member of a firm to be a member of the Association, and members' sons under 21 years of age may be admitted as members for an annual subscription of half a guinea." This rule is in direct opposition to the "capacity" clause of the American association, as it gives each mill or firm, small or large, rich or poor, one vote in the meetings. It is proposed to change this rule so as to permit any member of a firm to vote. Another thing of importance to millers discussed in the "Council" was seed wheat. An instance of their work on this point was the statement of one of the councilors, Mr. Wilson Marriage, who said that wheats recommended by seedsmen are often valueless. For instance, a new wheat, called "San Salvator," is perhaps a good farmers' wheat for the quantity of straw and wheat it gives, but from a millers' point of view it is utter rubbish. He suggested that a circular be issued by the Association to the millers of the country, calling attention to the subject and asking them to discourage among farmers in their respective districts, by every possible means, the sowing of inferior wheats, and to grow only the best, thus tending to increase the gross value of the country's wheat crop. Every newspaper, agricultural and otherwise, would insert such a communication if officially sent out, and he felt certain that the farmers' attention need only be drawn to the subject for good to result. This is practical work. To keep up interest in the association, it is proposed to hold two general meetings besides the annual meeting each year. Another member, Mr. Ashby, proposed to establish a library of milling and technical works at the office of the association, with the future addition of an exhibition of milling-machines, wheats, flours and patentees' models. President White suggested that the association should retain a chemist, who would for a small charge analyze samples for members, and that a technical committee might be formed for giving advice to members concerning any new machine or process which might be brought out, for which they at present have to trust circulars and pamphlets from the makers. In various other ways the British organization is to be brought more directly into contact with practical millers, and its growth and influence will be greatly increased. The managers of the American association would do well to imitate their British cotemporaries in liberality, equity, common-sense and practicality.

The DAWSON ROLL WORKS CO.

FOUNDERS & MACHINISTS,

—MANUFACTURERS OF THE—

Dawson Roller Mills

—AND FURNISHERS OF—

CHILLED IRON ROLLS

WITH DAWSON PATENT CORRUGATION.

ALL STYLES OF FLOUR MILL ROLLS RE-GROUND AND
RE-CORRUGATED WITH ANY FORM OF CORRUGATION.

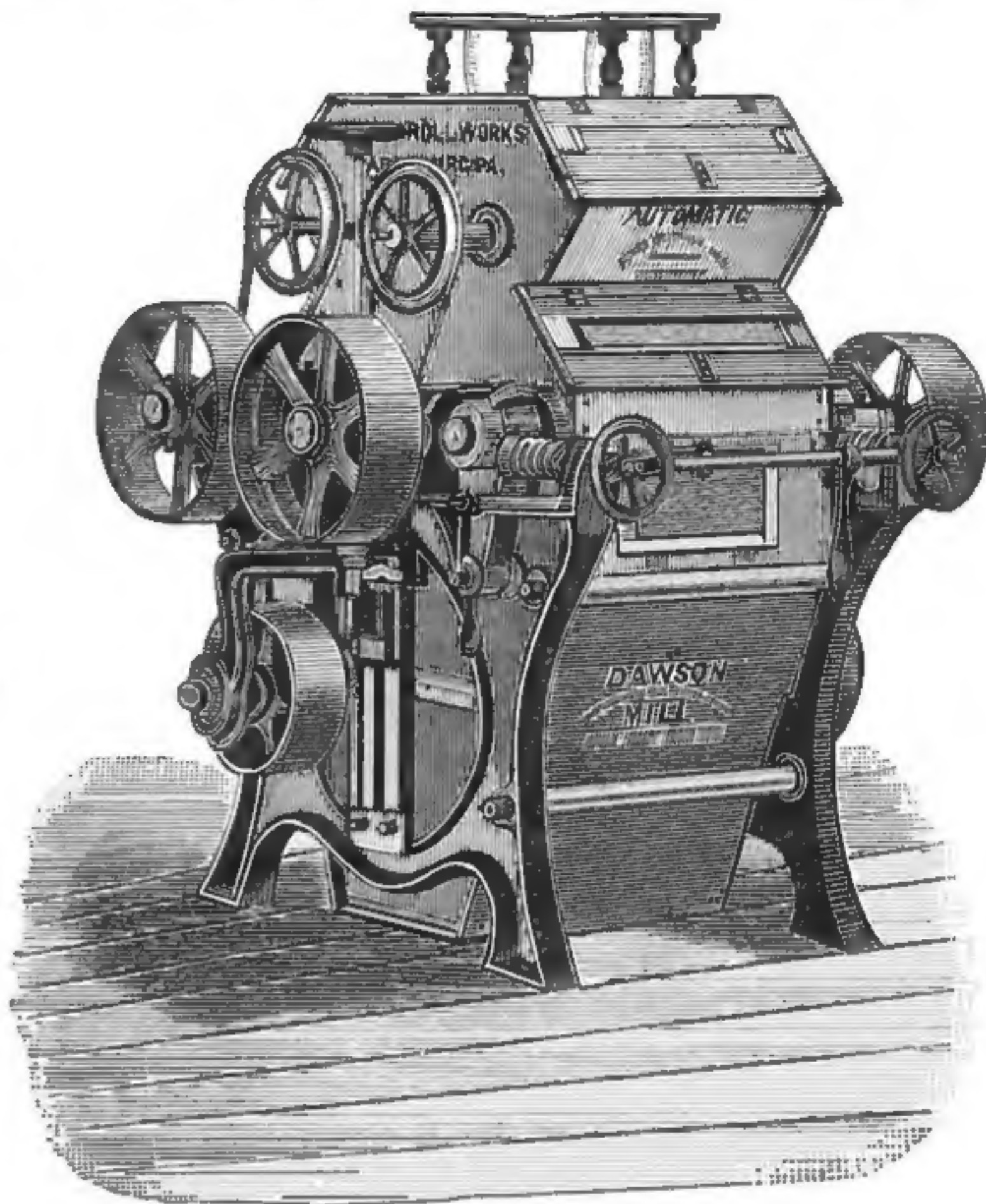
We have had large and extended experience in grinding and corrugating chilled rolls for milling, and have one of the largest and most improved plants in the country for this work, which enables us to meet the most exacting requirements of the trade promptly.

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South and Short Streets,

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BEST STEEL SAFETY MADE FOR
\$35

Easiest LADIES' Tricycle Known

Our Tricycles the Only Machine ever Recommended by Physicians for Ladies and Girls of a Delicate Constitution.

THE BUFFALO TRICYCLE CO.

Manufacturers of Ladies' and Girls' Tricycles, Ladies' and Boys' Safety Bicycles, Etc., Etc.

640 Linwood Ave., **BUFFALO, N. Y.**
SEND FOR CATALOGUE AND PRICES.



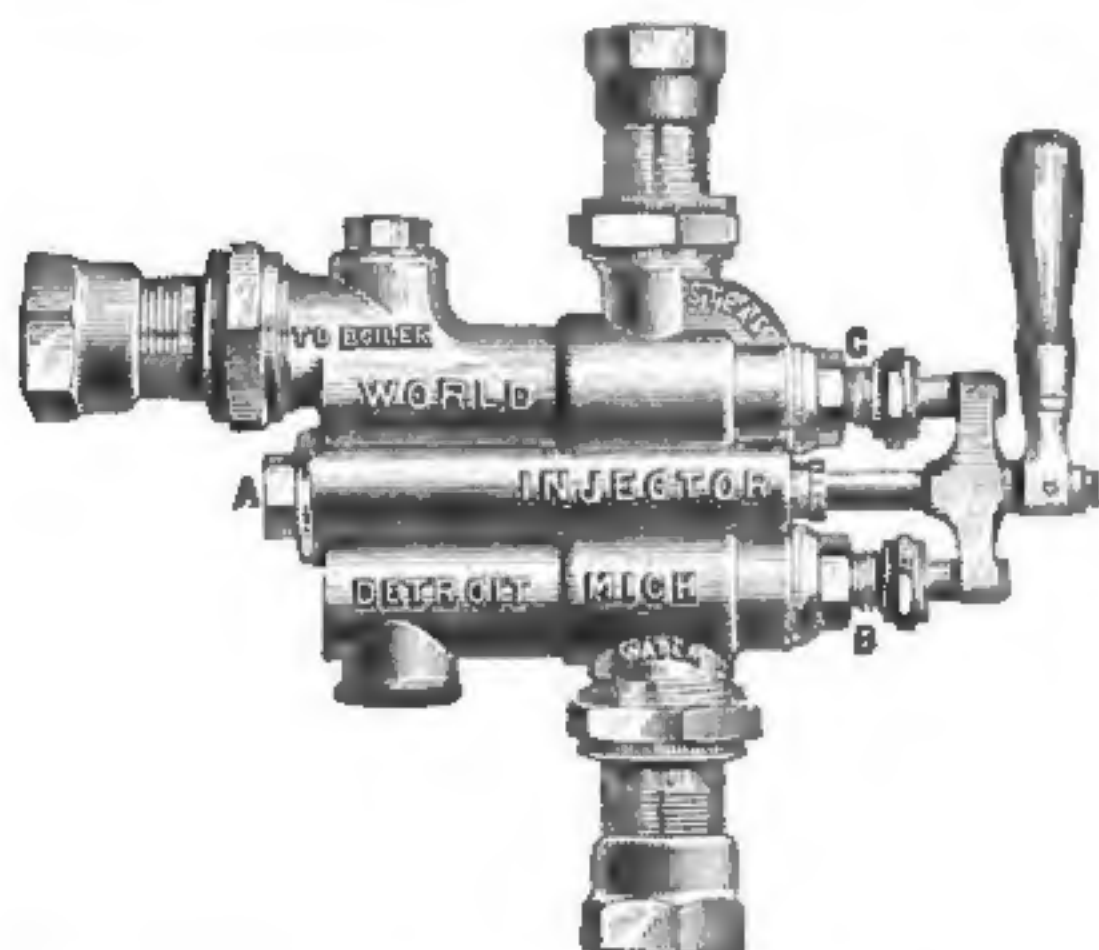
The Grand Hotel

LOCKPORT, NEW YORK.

Remodeled last year. Refurnished entirely with new and elegant furniture. Fitted with all modern improvements, including Electric Lights, Steam Heat, Call Bells, Elevator, Etc.

FREE BUS TO ALL DAY TRAINS.

W. C. COMSTOCK, PROP.



THE Best is the Cheapest. Whenever you want a Boiler Feeder that will prove reliable under all circumstances, buy the **WORLD** Injector. It is absolutely the simplest and safest to operate and handle of any injector now on the market, **FOR** it is operated by a single lever only. In whatever territory you find these reliable World Injectors on **SALE** they are always guaranteed by the seller.

GOLD is good in whatever part of the world you may travel, and the "**WORLD** Injector is worth every **DOLLAR** it will cost you. Catalogue containing Price List, valuable tables, and useful facts, figures and information **SENT** to engineers, machinists, and all interested in a perfect working injector, post-paid, upon application, **FREE**

AMERICAN INJECTOR COMPANY,

175 Larned Street West, DETROIT, MICH.

THE MILLING WORLD

AND
CHRONICLE OF THE GRAIN AND FLOUR TRADE

PUBLISHED EVERY MONDAY. OFFICES: { Corner Pearl and Seneca Streets,
Buffalo, N. Y.
McFAUL & NOLAN, - - - PROPRIETORS.
THOMAS MC FAUL, JAMES NOLAN.

SUBSCRIPTION.

In the United States and Canada, postage prepaid, \$1.50 Per Year, in advance; remit by Postal Order, Registered Letter, or New York Exchange. Currency in unregistered letter at sender's risk.

To all Foreign Countries embraced in the General Postal Union, \$2.25 Per Year, in advance.

Subscribers can have the mailing address of their paper changed as often as they desire. Send both old and new addresses. Those who fail to receive their papers promptly will please notify at once.

ADVERTISING.

Rates for ordinary advertising made known on application.

Advertisements of Mills for sale or to rent; Partners, Help or Situation Wanted, or of a similar character One cent per word each insertion, or where four consecutive insertions are ordered at once, the charge will be Three cents per word. No advertisement taken for less than 25 cents. Cash must accompany all orders for advertisements of this class.

Orders for new advertisements should reach this office on Friday morning to insure immediate insertion. Changes for current advertisements should be sent so as to reach this office on Saturday morning.

EDITOR'S ANNOUNCEMENTS.

Correspondence is invited from millers and millwrights on any subject pertaining to any branch of milling or the grain and flour trade.

Correspondents must give their full name and address, not necessarily for publication, but as a guarantee of good faith.

This paper has no connection with a millfurnishing house and aims to represent the trade without prejudice, fear or favor.

Address all communications

THE MILLING WORLD,
BUFFALO, N. Y.

Entered at the Post Office, at Buffalo, N. Y., as mail matter of second-class.

SITUATIONS WANTED.

Advertisements under this head, 25 cents each insertion for 25 words, and 1 cent for each additional word. Cash with order. Four consecutive insertions will be given for the price of three.

SITUATION WANTED.

Head miller with over 20 years experience want to make a change this spring. Address, A. MILLER, 67 Weaver Alley Buffalo, N. Y. 4t

SPECIAL ADVERTISEMENTS.

Advertisements of Mills for Sale or Rent, Partners Wanted, Machines for Sale or Exchange, etc., etc., cost 1 cent per word, for one insertion, or 3 cents per word for four insertions. No order taken for less than 25 cents for one insertion, or 50 cents for four insertions. Cash must accompany the order. When replies are ordered sent care of this office 10 cents must be added to pay postage.

WANTED, TO RENT.

A good Custom Mill, in a good grain section. Steam or water power. Address, MILLER, P. O. Box 170, Pocomoke City, Worcester County, Md. 252

FOR SALE AT A BARGAIN

I have a half interest in a Short System Roller Mill which I will sell at a bargain. Don't write unless you mean business. Address, GEO. FOSTER, Wakeman, O. 47

FOR SALE.

One No 1 Howes, Babcock & Co., Silver Creek, N. Y. Lengthened Scourer and Smutter, nearly new. Address, CHAS. SCHOEPLIN & BRO, Gardenville, N. Y. 46

FOR RENT.

Clinton Mills, at Back Rock, Buffa'o, for rent on reasonable terms, recently repaired and put in good order. Apply to CHAS. DANIELS, over 311 Main Street, Buffalo, N. Y. 6tf

FOR SALE.

Rare chance, Grist, Saw, Planing Mill, Lumber and Coal Yard, doing good business. Growing village; 15 miles from Washington. Owner wishes to retire. Small capital needed Terms easy. A. FREEMAN, Vienna, Va. 37

FOR SALE

Whole or part of a 125-barrel Flouring Mill, built entirely new from ground up. Equipped with latest machinery. Side track at mill door. Located in South Michigan. Big local and exchange trade. For further particulars address B. B., care of THE MILLING WORLD. 37

FOR SALE.

Flour and saw-mill with or without farm of 38 acres. Four buhr mill, with machinery and building in most excellent condition Buildings on farm good. Good run of custom. Can run by water 9 months, also have steam power. Terms easy. On Big Indian Creek, 1/4-mile from Crandall, on Air Line. Mrs. C. KRACKMAN, Crandall, Ind. 36

MILL MACHINERY FOR SALE.

One No. 0 Standard Combined Separator, Smutter and Brush Machine; new, best make.
One 20-Inch Under-Runner Portable Mill, French Buhr Stone, capacity 10 to 12 bushels per hour; new, best make.
One 14-Inch Vertical Feed Mill; best make, new, a bargain.
One No. 6 Dustless Separator; new, a bargain.
One No. 1 Full Rigged Combined Dustless Separator; new, a bargain.
Four Corn Cob Crushers, right or left hand, driven from above or below, best make; capacity 40 to 60 bushels per hour.
Three No. 1 Corn Shellers, capacity 200 to 300 bushels per hour; new.
One No. 2 Purifier. New. Best make. A bargain.
One 20-Inch Portable Mill.
One 18-Inch Double Gear Portable Mill.
For particulars address, FRANK SMITH, care of THE MILLING WORLD, Buffalo, N. Y. 5tf

FLOUR MILL WANTED

Flouring-mill wanted at Evart, Osceola Co., Mich. Good wheat region, large territory. Correspondence solicited. GEO. W. MINCHIN, Evart, Osceola Co., Mich. 69

CERTAIN newspapers, politicians and quack orators are constantly asserting that "the price of the grain grown on American farms is made in London and Liverpool." Perhaps it is, to a certain extent, but if British markets really fix American cereal prices, how comes it that the prices of wheat grain and flour have advanced during the past two months in the United States, while remaining stationary in England? There must be a screw loose somewhere. Where is it?

ALLEGED statements of "visible supplies" of wheat and other cereals in the United States are coming to be looked on with suspicion and ridicule. They are generally mere guesses. They represent little or no effort to gather information, and, absurdly enough, in some instances they treat as not "visible" large quantities of wheat that are in store in private or "irregular" warehouses. It might puzzle a plain, sane man to distinguish between "visible" and "non-visible" wheat, in two adjoining elevators, and yet this distinction is insisted upon by the speculator statisticians who monkey with crop figures for the benefit, or the detriment, of those individuals whom they wish to draw in and relieve of their superfluous shekels.

DETAILED crop reports show the wheat yield of the United States to range from 5 to 70 bushels to the acre. Of course the "official average" will level all the wheat land in the country to 11, or 12, or 13 bushels to the acre, unjustly giving the 5 to 10 bushel lands a perfect equality with the 20 to 70 bushel lands. The more productive lands are grossly misrepresented in such an "official average," and the unproductive lands are unduly favored. Is it not time that this elaborate misrepresentation should cease? The agricultural department should arrange township, county, state and national averages in such a way that the more favored and fertile regions are not made to appear in an unfavorable light, or the less favored and fertile regions made to appear in a too favorable light. It should not be forgotten that immigration agents in Canada, Argentine Republic and Australia are using the unfair and incorrect "official average" published by the United States government to damage this country in the estimation of intending emigrants in European countries. Sent out with the sanction of the great department, the figures naturally carry with them an influence for evil. Canadian agents, for instance, represent the Manitoba wheat yield at 30 bushels to the acre, and in their circulars, sent over the world, they make a comparison with the average 11, or 12, or 13 bushels sent out "officially" by the United States authorities. Of course the Manitoba figure is a gross falsehood on the side of exaggeration, but how much less is the "official average" figure of the United States wheat yield a gross falsehood on the side of whittling down unfairly or inequitably? It may be contended that the "official average" is an honest figure, but that contention will in no degree remove the injustice of averaging millions of acres not cut at all with the acres that are cut. Let the total acreage be given with the total yield. Let the report show where the 5, or 10, or 20, or 30 bushel yields are located. Let each State show its capacities in the report. Let not the 50 or 60 bushel yield of Washington or Oregon be leveled to boost up the 5, or 10, or 20 bushel yield in Dakota or Ohio. The "lumping" method of averaging has been a mistake from the start, and it is more and more a mistake every year as the fertilized wheat regions keep up and increase their average yield, while the regions in which no fertilization is attempted are every year falling lower and lower as the natural fertility of the soil decreases. Every year the injustice of "lumping" is greater and greater to the best lands, while the advantage is greater and greater to the poorest lands. The "official average" in Manitoba may be "one mighty lie," but the "official average" in the United States is certainly the monumental "fake" of the century. It is a gross deception working in every direction from a common storm-center of injustice and falsehood, and its effects can be only evil.

THE PENNSYLVANIA MILLERS.

Following is an abstract of the proceedings of the Pennsylvania Millers' State Association in the late Reading-convention, taken from the excellent official report, advance sheets of which are sent us by Editor Everett of the "Millers' Review," who has the thanks of THE MILLING WORLD for his courtesy. President Isenberg, in his opening address, sketched the history of the association and pointed out its actual social and cash value to the millers of the State. The insurance company that grew out of the association has saved the millers over \$45,000 in insurance. The association has saved millers from expensive litigation in patent infringement cases, and it has regulated the use and abuse of commission and consignment business. It has kept the railroad companies at bay and forced them to recognize the demands and the rights of the millers. He urged that the association strike out the "one per cent. clause" in buying grain, and "pay spot cash on the arrival of the car, not the bill-of-lading." He urged the members to join the Millers' National Association.

Secretary Landis Levan's report showed that during the past year 41 new members were added, and that some names had been stricken from the roll for non-payment of dues. The present membership is all live timber. The Pennsylvania association has allied itself as a body with the Millers' National Association since the last annual meeting. The catalogue issued by the association, containing its history, constitution and by-laws, had been published, and 3,000 copies were sent out to the millers of Pennsylvania, Delaware, New Jersey and Maryland. The advertisements in the pamphlet paid all the expenses of publication and mailing, and left a balance of \$65.35, which was covered into the treasury. The treasurer's report showed a favorable condition of the financial affairs of the body. The committee on machinery and processes had little to report. The past year brought no startling changes in milling. One new machine, an alleged "dustless" purifier, had been brought out. The long and short systems are still agitated, but "leading millers in our association concede that 3 to 4 breaks on wheat are sufficient; any more than 4 a superfluity. But 5 or 6 pairs of rolls should be used in mills of 100 barrels or less, for finishing. Some mill-builders are advertising 4 pairs of rolls, 2 reductions on wheat and 2 on middlings. In our opinion this is radically wrong. How any miller can make a finish on tough wheat with 2 pairs of rolls is above our comprehension. A great number of these little mills are being built, and it is a notorious fact that, where they come in direct competition with mills of plenty of roll surface and sufficient bolts to handle the stock scientifically, they are a total failure and a curse to their owners." This report was presented by Philip F. Maus, chairman of the committee.

This report was accepted. After considerable discussion Mr. Butler said he built "short mills where millers' purses are short; where they are long, we build long mills. But the short system has come to stay." Mr. Dayton asserted that short mills do not compete successfully with long mills. Judge Hoffa and others took part in the discussion, but the report was adopted, and thus the association goes on record as disapproving the short system of milling, as Mr. Edge, one of the members, pointed out. This was probably the most important transaction of the convention, as it records the deliberate action of an important millers' association in an important milling state, in which many short mills are built and building.

The decision of the executive committee to act in connection with the Millers' National Association was discussed. Chairman W. Latimer Small, of the committee, said, referring to the committee's decision: "It simply says that when allied with them, whatever they do we are supposed to know and profit by. This question in connection with the Millers' National Association is a very important one. We have in Pennsylvania 8 or 10 members. They pay only annual dues. One old gentleman came to them with his mill burned down. He used rolls of various manufacture, and when he started to rebuild a machine man told him that he could not with safety build unless he bought rolls from the Big Four, but he did not, and then came to the association and asked for

protection. They could not do it because he had gone outside of the National for the purpose of supplying himself with rolls, and they could not do anything for him." Mr. McFeely said on this subject: "I seriously object while the National is in partnership with the Big Four. As far back as 1870 you will remember that the National joined with the George T. Smith Co. The very fact that they joined with 4 firms that have no show for their claims made is enough to keep members away, and it is an open fact that they paid \$200,000 for a decision in their favor at Chicago. To come back to the roll question. The George T. Smith Co. never had a decision in their favor. It was simply a dilly-dallying and bleeding of millers, and the National Association has played into their hands. The millers' journals are down on it, except one which is paid by the National." Mr. Small further said: "On the question of rolls, the legal talent of the West believes that the patents lie with the Big Four. If a man buys outside, he buys at his risk. We are not expected to be assessed, as we simply act in conjunction with the National in case we join, and thus make a stronger force by having our State in connection with the National Association. It strikes me that it is of great advantage to join it." The report was accepted, and the Pennsylvania is allied with the National.

In his paper on "Milling in Pennsylvania. How Can it be Made Profitable?" Mr. Small said:

The manufacturers of flour in Pennsylvania, compared with that of twenty years ago, has lost its earning power of profit. Pennsylvania to-day consumes more wheat than is raised within its borders. Eastern and southern Pennsylvania export a limited quantity of flour, while central and western Pennsylvania draw largely of wheat and flour from the Western States. Any miller who will look around him will see old water-power mills abandoned or dilapidated, while new steam roller mills have been erected by the side of the railroad. The old stone mills of 20 to 25 horse-power situated 10 miles from the railroad, the miller in his wamoose, with bare feet, sitting in the door waiting for his dam to fill, while a picturesque object, are of the past. The preference for rolls as grinders has been decided. The roller mill at the railroad replaces 20 old stone ones. The situation saves hauling, while coal at present price, 25 to 30 pounds used to make a barrel, say four cents per barrel for fuel, with scalpels, aspirators, short bolts, centrifugals and bran-packers, with a yield of 4:25 to 4:42 bushels to a barrel, and 94 per cent. of good straight grade flour, soon makes its home market. Your farmer will haul towards the railroad, where the telegram just received will fix the price of his load. He will trade where prices originate. Science is also a factor. Milling of to-day is a science, returns, re-grinds and cut-offs, is a study that can not be learned from books. Western millers have the advantage, inasmuch as their mills are of new construction, building and machinery, while ours are mainly new machinery in old buildings, often inconveniently situated. Their system of selling flour and drawing with bill-of-lading attached makes the sale secure, with a quick return. Our millers pay cash for their grain and give credit of 30, 60 or 90 days. The western millers have in charge of their mills active young men who have learned the new system without being hampered by the old. The Pennsylvania millers are imposed on by freights. Why should we pay Philadelphia and Baltimore rates on western wheat to our mills, when we are 60 to 100 miles nearer the point of shipment? Then the freights from stations near the mills to the sea-board, say 50, 60 or 70 miles north and west of Philadelphia, are so low that to stop wheat at your mill compels you to pay Philadelphia price. Further, milling in transit is allowed in Pittsburgh and west of Pittsburgh, why should it not apply to central and eastern Pennsylvania? Our millers are compelled to pay Philadelphia price for their wheat and cooerage, then freight to Philadelphia and Baltimore on the flour. To place ourselves on fair competition with western mills we should have the advantage of our situation, milling in transit, an allowance for the distance we are short of the sea-board. We are certainly handicapped by the railroads. The saving of freights would be in itself a profit. This society should give such expression and take such action that the railroad companies would allow us to live.

Mr. Dayton's paper on "Freight Discriminations" and their operation against the eastern miller elicited much discussion. Mr. Dayton said:

It would seem to the average observer that rates on grain and its products are made with the sole object of building up western milling industries at the expense of the eastern. This, we must admit, shows shrewdness on the part of Western railroads to build up and foster milling enterprises on their lines; but why our eastern railroads should join with them so heartily is a conundrum to us. We think, by pursuing a more liberal policy toward the millers on their own lines, they might largely increase their business and thereby secure as much traffic as they now have, and without climbing over each other, bat in hand, to solicit the shipments of our more favored western brethren. This latter spectacle might be amusing were it not too painfully serious to us in its results. We believe the western miller has naturally no advantage over the eastern miller; the one has the grain, the other the market; and with an even chance we see no reason why mills of large capacity should not thrive and flourish as well East as West. But, by freight discrimination, the miller located within 260 to 400 miles of the sea-board is so seriously handicapped by having to pay full sea-board rates on his incoming grain, and then from one-half to two-thirds as much more to forward his products to the sea-board, or even to distribute them to his neighbors within a radius of 50 to 75 miles, that the result is that the majority of eastern mills are limited to a strictly local market, and hence must be limited in their capacity to the requirements of the home market. This cripples all enterprise so that large eastern mills are the exception, not the rule, and many that were once prosperous millers have been entirely driven from the business.

Discriminations in freight were abundantly shown in statements made by Messrs. Dayton, Ely, Isenberg, Small

and Hoffa. A paper on "Credit" was read by J. M. Maguire. The committees appointed on Tuesday afternoon were as follows: On nominations for officers: Messrs. Miner, Dayton, Lott, Small and Ely. Committee to draft resolutions: W. Latimer Small, Cyrus Hoffa, G. A. Dayton, J. P. Felt and P. F. Maus. The president appointed Messrs. Tatnall, Yeager and Maus to audit the treasurer's account. They reported a balance of \$21.47 due the association. The report was received and the committee was discharged.

At the Tuesday evening session President Cyrus Hoffa was in the chair. A milling-in-transit resolution was adopted. The committee on grading and inspection did not make a formal report, but grading was generally discussed. Mr. Small said: "There are no two men here who grade alike. It would be of immense advantage if we could. The refuse wheat of our county goes to Richmond and goes into their flour. I find again my people do not sample alike. One man grades No. 1, another calls it No. 2. We try to use all the best long-berry and we call it No. 1. Anything poor we grade as No. 2. All musty wheat we grade No. 3. There is a difference of three cents between the grades. It seems to me that we could agree on some sort of basis. I find friends twenty-five miles north grade differently. So in Cumberland Valley and down towards Maryland. One man tells me that he put in cockle machinery, but took it out again because the cockles did not injure it in the least. The western millers do not think that it hurts it at all." Mr. Small said, in answer to a question, that he does not think that cockle injures wheat. Mr. Sellers, Mr. Miller, Mr. Isenberg, Mr. Wiest and Mr. Welsh took the opposite view. Mr. Maus moved "that we discriminate 10 cents per bushel between No. 1 and No. 2." Mr. Handwork objected, and the question was not settled.

Mr. Isenberg brought up an important question, saying: "There does not seem to be any one here to represent the committee on patents. I have an item of expense in the suit with Mr. Detweiler in which all millers are interested. If Detweiler succeeds in his claim it will take millions of dollars out of this State, and our association should stand shoulder to shoulder. Here is a matter of dollars and cents, and we can not afford to stand by and let Mr. Bosler fight it single-handed. If we sustain him none of us will feel it. In view of this fact, and believing that the claim is fraudulent and a black-mailing scheme, we can not afford to let our members be imposed on. I move that an assessment of \$5 be made, payable in 90 days, to help bear the expenses in conducting this suit. The litigation has been going on for a good while, and the biggest part of the bill is for witnesses. It has run up to almost \$1,000. If a \$5 assessment is levied on each member, every one would pay it cheerfully. It will, perhaps, give Detweiler to understand that he can't black-mail this association." Messrs. Lott, Miner and Freed had the assessment raised to \$10. Mr. Sellers said: "I don't think Detweiler has a shadow of a chance to make anything out of this suit. The system is simply to run milling from one buhr to another. If that is gradual reduction, it is different from all others. As far as helping Mr. Bosler is concerned, we must do it. If \$5 won't do it, we want \$10 or \$20, if necessary. I think the suggestion as to distributing circulars is a good one. They ought to be willing to help." The motion to assess \$10 per member was adopted.

Mr. Isenberg read a paper on the "Pennsylvania Millers' Mutual Fire Insurance Company," written by J. M. Maguire, giving a history of the commencement of the company in 1886, after having been under consideration since 1879. The paper stated the following points of interest:

After due compliance with the laws regulating "mutuals," on January 10th, 1887, a charter was issued by the Commonwealth of Pennsylvania, and on the 15th of January the first policy for \$5,000 was issued; this policy has paid in assessments up to this time a total of \$141.75, or an annual average of \$37.70 for \$5,000 insurance. That year (1887) closed with insurance of \$357,850.00 in force, and no liabilities or any assessments levied. January 7th, 1888, the first \$5,000 policy for the year was issued; this policy has paid in assessments to August 5th, 1890, (at which time the property was sold and policy canceled,) the sum of \$121.13, or an annual average of \$47.70 for \$5,000 insurance. I will just add here that upon the cancellation of this policy the "deposit," \$95.00, made with the company at the time the policy was issued was returned in full in cash to assured, and the purchaser of the property has since presented his application for a renewal of the insurance. The insurance in force at the close 1888 was \$551,850.00. Our losses this year amounted to \$5,000, and were

closed up without any outstanding liabilities. The first policy issued in 1889 was on the rebuilt mill of A. L. Chambers, of Latrobe, the former mill having been burnt by an incendiary, now serving a term in the Western Penitentiary; said burnt mill was insured in our company in November, 1887, and destroyed the 17th day of July following, and the amount of \$5,000 paid by this company in full September 15th following, upon which the total assessments to date are \$90.63, about \$51.00 per annum on \$5,000; this year closed with one loss of \$5,000 and insurance in force aggregating \$751,100. The first policy issued in 1890, January 3d, amount \$5,000, has paid assessments of \$32.40; at this time we are rubbing close to \$1,000,000 insurance with cash "deposits" of over \$20,000 and "premium notes" of over \$100,000. A carefully computed table of the insurance written by this company, carrying into it all and every assessment thus made with a rate of 2½ per cent. charged by reliable stock companies, results as follows: \$19,275.00 paid to the Pennsylvania Millers' Mutual Fire Insurance Co., against \$52,785.00 to the stock company.

The paper urged a close adherence to "mill insurance only" as a safe business principle. Mr. Welsh read a paper on "Options" and their relation to the miller. Mr. Hoffa's paper on "Millers' Associations" and their social and pecuniary advantages was read.

In the Wednesday morning session various subjects were discussed. Speaking on transportation, Mr. Welsh said: "We find that millers in the Cumberland Valley and Maryland and Virginia, under the present system of rates, can get to Philadelphia on a certain basis and go to New York or New England as low as we can from Philadelphia. From New York the average rate is 3 cents per 100 pounds, while if we want to go to New York we pay 8½ per 100 pounds, or 17 cents per barrel. We succeeded in getting a concession on that; it was 19 cents on New York rate from Philadelphia and contiguous points. I have had considerable correspondence with the railroads on this subject, and they admit that it is unreasonable, but they can not do anything. The freight agents admitted that the Pittsburgh miller can deliver flour to New England points at the same rates that any miller can in this State. Matters of that kind this association should take up as a body and be prepared to take a stand. Such discrimination will not stand the test of law or the Inter-State Commission. The question of milling in transit is also of importance. The Pittsburgh millers, I understand, have that privilege. The general freight agent in Philadelphia told me that no such privilege was granted in this State." After further discussion, Messrs. Isenberg, Levan, Dayton and Small were appointed a committee to confer with the railroads on the rate question. The following resolution, offered by Mr. Miner, was adopted:

Resolved: That it is the sense of this Convention that the custom of grain-dealers of only guaranteeing weights within one per cent. is an abuse and an outrage upon the millers, and that the members of this association will hereafter endeavor to buy only of such dealers who will guarantee weights in full on estimated or country point weights.

President Hoffa announced, after each miller present had responded to his name, with the price of wheat in his district, that the average price paid for wheat was 98½ cents, based on 28 different localities. In a discussion Mr. Butler, in answer to a direct question, stated that the short system requires 4:40 of wheat grain to the barrel of flour. Resolutions on the death of Jacob Walter, ex-vice-president of the association were submitted by Messrs. Felt, Miner and Isenberg. The "options" question, treated by Mr. Welsh, was not discussed, the members seeming to think that the Butterworth anti-option bill is too extreme. The convention was a practical and profitable one throughout.

AMERICAN CORN IN FRANCE.

Maize is hardly known as an article of food in France. As a crop it does not thrive well there, and those people who do eat corn, eat Spanish or native corn, which is not palatable. Consul Griffin writes from Limoges that "if corn-meal could be introduced as an army supply its adoption would prove advantageous to the soldier. The bakers would find a greater profit in mixing meal with rye flour, thus producing a lighter and more digestible bread. Were American corn so introduced, a lasting favor would be conferred upon the poor French peasant and workman, as well as an outlet for the overproduction for the American farms. A very simple way to reach these country people with this valuable product would be to follow the fairs, which are held monthly or bi-monthly in nearly every canton of France. There let American corn in different ways be prepared and cooked before their eyes; let the people taste it, handle it and find out how easily it can be cooked and how cheaply it can be

bought. I would say that from personal experiments medical and other professors who never before had eaten American corn, but thought corn was only a food for cattle and fowl, after tasting it prepared in the different ways we have it in the United States, declared it not only wholesome and nutritious, but delightful to the palate."

The crop of corn in France in 1888 was 7,000,000 metric quintals of 220.47 pounds. The average price is nearly 20 francs a quintal. The import of foreign corn is 4,800,000 metric quintals, of which 2,000,000 are from the United States and 1,600,000 from Roumania. The consumption is put at 4,037,000 quintals, 2,000,000 in distilleries, 2,100,000 are fed to animals and the remainder is used in starch factories. The transportation companies in Paris use great quantities for food, and declare that a tax on corn would force them to raise their prices. Last week the French Senate after a long debate finally voted in favor of a duty of 3 francs on corn, and supplemented this by imposing a duty of 6 francs on corn-meal. During the debate it was distinctly avowed that the duty on corn was to be considered only a continuation of the policy toward the American pork. ComteCarreil declared that the importation of American pork was only another mode of importing American corn, and French farmers could not maintain themselves against it. The prohibition on pork is right, he said and ought, to be maintained, and the duty on corn should also be made prohibitive. The farmers who raise beets favor a duty on corn, while the distillers are opposed to it.

MILLING PATENTS.

Among the patents granted October 14th, 1890, are the following:

The Eagle Roller Mill Co., New Ulm, Minn., registered trade-mark No. 18,520, the word "Surprise" for wheat flour.

Geo. W. M. Keller, Middletown, Md., registered trade-mark No. 18,535, the words "Bakers Favorite" for wheat flour.

Robert L. Hawkins, Dadeville, Mo., No. 438,387, a flour-bolt, comprising the combination of the casing, the inlet and outlet spouts, the cylindrical reel mounted upon the shaft, having spiral conveyers extending through said spouts, the star-shaped drum or body arranged within the reel and having arms extending to the head at the inlet end, the plates or buckets arranged between the drum or body and the head at the outlet end, the plates or flanges secured upon the inner sides of the longitudinal ribs of the reel, and the longitudinally-arranged agitators of coarse wire-cloth or analogous material.

John S. Chase, New Salem, Mass., No. 438,370, a grain-meter.

Eugene Bretney, Indianapolis, Ind., No. 438,523, a dust-collector.

John Johnston, Neenah, Wis., re-issue No. 11,137, original No. 403,757, a flour-bolt.

EUROPEAN "RETALIATION" IMPOSSIBLE.

During the past month the free-traders in the United States have industriously circulated the statement that Great Britain, Germany, France, Belgium, Austria-Hungary and other European countries are seriously contemplating a union for industrial and commercial "retaliation" against the United States in case the McKinley tariff bill becomes a law. The report would be "important if true," and its importance would be of more concern to the European countries named than to the United States, for three very good reasons: 1. Some of the countries named find a profitable market in the United States for many articles of luxury which they produce, which their own people are too poor to buy. They can not well afford to throw away that market, or that portion of it which will remain after the new tariff begins to influence manufactures here. Even a fraction of a slice is better than none, 2. Some of the countries named import considerable quantities of food from the United States. They can not afford to quit buying the surplus of our cheap and excellent foods. 3. Most of the wares the United States imports from

Europe are wares which we do not absolutely need. They are largely articles of luxury, which we shall soon be able to make for ourselves. Every advantage is on the side of the United States in the contemplated struggle, and the sooner European nations recognize our absolute independence of Europe and our right to legislate as we please for our domestic affairs, the sooner they will be able to adjust their affairs to the change in conditions that is inevitable.

That the United States is independent of Europe and that Europe takes nothing from the United States which she can avoid taking are not empty boasts or assertions. The countries said to be "meditating reprisals" upon us sold to the United States in the fiscal year 1889, the last of which details are published, \$347,036,963 worth of goods, out of \$745,131,652 imported from all countries, that is, somewhat less than half. But of the products taken for this country about half, or \$172,800,000, were luxuries of a few great classes which Americans could get along as well without, and \$92,300,000 in value was of other manufactured products which compete directly with products of this country. The value of all other imports from the countries named, including a multitude of minor articles of luxury, a host of minor competing manufactures, all materials of industry, and a large value of products originating in other countries, but shipped through England, Germany or France because of convenience, was but \$81,900,000. They depend upon us for breadstuffs, meats, light, implements, tools, engines and a thousand other necessities of life or of production. But the United States takes from them cloths, fabrics and fancy articles which are mere luxuries, wines, spirits, jewelry, gloves, buttons and feathers, which are in no sense necessary, and other products of industries which are merely suppressed and prostrated here by foreign competition, and but for that competition would abundantly supply the American demand. Following is a table showing how little the United States really depends upon Europe for any real needs. In this table are included among luxuries only the chief classes here named: Woolen, cotton, silk and linen goods and clothing, because products used by the millions are or can be almost wholly produced here, and the imported articles are objects of luxury; wines, manufactures of wool, gloves, and other manufactures of leather, jewelry, hats and bonnets, feathers and fancy articles, imported glass and earthenware, buttons, bristles, books and paintings. Among other competing manufactures which this country does or can fully supply are included only products of iron and steel, leather, metal compositions, tin-plates, musical instruments, salt, chemicals and products of coal tar. "All other" articles thus include many which should be in these classes. The division by countries is as follows:

	Luxuries.	Competing Mfr's.	All others.	Total.
Great Britain.....	\$70,800,000	\$78,100,000	\$29,400,000	\$178,300,000
Germany.....	44,400,000	9,900,000	27,400,000	81,700,000
France.....	49,200,000	2,700,000	17,700,000	69,600,000
Belgium.....	4,200,000	1,300,000	4,300,000	9,800,000
Austro-Hungary.....	4,200,000	300,000	3,100,000	7,600,000
Totals.....	\$172,800,000	\$92,300,000	\$81,900,000	\$347,000,000

These figures make a convincing showing, that may well startle the nations "meditating reprisals," as they prove the practical independence of the United States. The other side of the question, the dependence of European nations upon the United States for large supplies of foods and necessities, may be quite as strongly proved by official figures. The United States sends annually to Europe over \$617,000,000 worth of food, lighting materials, tobacco, manufacture materials and cars and machines, without which many European industries would be destroyed. These totals show that Europe, in "reprisals," would simply be engaged in the suicidal surgical operation of cutting off her own hands to spite the United States. Our exports to Germany or France of necessities of life and industry are more than double all American imports from Germany or France, exclusive of luxuries, while exports of necessities of life and industry to Great Britain are in value nearly four times all American imports of other than luxuries from Great Britain. In the following table only wheat, flour and corn are included as breadstuffs; cattle, beef fresh, canned and salted, tallow, bacon, hams, pork, lard, butter, oleomargarine and cheese,

are included as provisions; turpentine and oil-cake are included with naval stores, and only sole and upper leather, ore and ingot copper and deal boards, appear under the heads named. Of machines only agricultural implements, sewing-machines and "machinery not elsewhere specified" are included. Yet the figures show forcibly European dependence upon this country for necessities of life and of industry:

	Great Britain.	Germany.	France.	Other Cntrs.
Cotton.....	\$148,297,771	\$41,623,227	\$24,354,656	\$32,338,865
Provisions	115,679,140	10,842,545	3,406,159	18,413,045
Breadstuffs.....	90,655,079	4,864,004	6,810,147	15,769,585
Petroleum.....	9,698,488	8,808,544	5,465,072	10,676,334
Tobacco	8,922,472	4,818,525	1,477,974	5,505,333
Naval stores, etc....	9,601,682	2,255,609	2,453,724
Leather.....	8,717,431	2,394,549	1,408,412
Copper.....	6,618,007	130,192	762,126	733,215
Machinery.....	4,058,537	1,304,858	598,496	984,321
Fur and Hops.....	5,136,199	519,431
Boards.....	2,230,283	291,324	138,630	918,632
Total.....	\$409,615,089	\$75,252,808	\$43,013,260	\$89,201,466

Imagine either of the European countries named engaged in "reprisals" against the United States. Their supplies of cheap food cut off would mean dearer food for their laborers. Their supply of manufacture material cut off would mean less work for their laborers. Their best market for their most profitable wares cut off would mean a glut at home, stagnation, loss, disaster, industrial death. Each of the countries named produces a surplus that competes with a similar surplus in every other of the "reprisal" nations. Plainly, if there is one mode of commercial warfare which Europe can not afford to adopt, that mode is "reprisal." The century has made the United States a nation of 64,000,000 citizens, a nation compact, solid, self-reliant, self-contained and absolutely independent of the rest of the world, while absolutely indispensable to other nations of the world, and European economists and statesmen, rulers and legislators should not forget that fact when they are prating about "reprisals."

COTEMPORARY COMMENT.

It is now a foregone conclusion that the quality of Manitoba wheat this year will be about as poor as that of last year was fine. The long spell of continued wet weather which followed the cutting of the grain has greatly damaged it, and according to advices received from the principal wheat sections in Manitoba, the average quality is expected to inspect No. 2 northern, which is four or five grades below No. 1 hard.—*Montreal "Trade Bulletin."*

A little surplus flour at present prices is not a dangerous thing. There is a wide difference between carrying a small reserve of flour into a period when there will be no reserve of wheat and carrying a big surplus of flour into a period of a big reserve of wheat. There is also a great difference between carrying forward flour made from relatively high cost wheat, and that bought relatively low, as it is now.—*Minneapolis "Market Record."*

THE RUSSIAN WHEAT INTEREST.

According to a recent British consular report, the wheat trade of Russia is in the throes of revolution. All railway rates for the carriage of grain were the first to undergo serious modification at the order of the government commission, and with the view of encouraging the exportation of grain products, such as flour, grits and bran, a certain proportion of the payment for railway carriage was made returnable to the exporter. It is hoped that from the reforms introduced in the system of working the railways, and especially the proper regulation of the rates of carriage of grain and other raw produce, some benefit will accrue to the country at large, and in particular to those immediately interested in the disposal of rural and other products abroad. In addition to regulating and reducing as far as possible the cost of the carriage of grain and other agricultural produce by rail to the ports and across the land frontiers of Russia, a measure was passed last year authorizing advances of

money by the state bank through the medium of railway companies against grain deposited at railway stations, the railway companies being at the same time authorized to undertake the storage and sale of grain on commission. Money advances on grain stored at elevators are also now made by the state and private banks against elevator warrants. The facility thus afforded in the latter instance for obtaining money on grain, pending its final sale, are said to have yielded beneficial results. As regards the advances on grain by railway companies through the medium of the bank, this measure has apparently been rendered nugatory by bureaucratic obstruction and dilatoriness.

With reference to grain elevators it is necessary to state that these now exist as St. Petersburg and Eletz, and that the South-Western and Riazan-Kozloff Railway companies have obtained the necessary sanction for erecting such elevators at their stations, one of them to be established at Odessa. It is expected that the construction of 14 elevators will have been finished by the coming autumn. Elevators will be erected at the following stations on the South-Western lines: Novo Ukrainka, Pyrlitsa, Kryjopol, Polonnoe, Popelnaya, Proskairov, Tchubovka, Skinossi, Rojische. On the Riazan-Kozloff line: Lebedian, Dankoff, Riazsk and Kozloff. The elevator at Eletz, in the province of Orel, received during 1889 about 600,000 pouds (9,580 tons) of grain for storage, and about 75,000 pouds (1,100 tons) were disposed of by it in other ways. The immediate effect, so far as the establishment of elevators in Russia is concerned, has proved advantageous to grain growers and dealers, who are now able to obtain advances of money on easier and more favorable terms to themselves than heretofore. It also enables them to regulate their sales more in accordance with the demand for grain at the ports and in foreign markets. There still exists a considerable amount of prejudice on the part of certain native grain-dealers against the use of the elevator. They can not yet reconcile themselves to the idea of the loss they are convinced they would sustain by the removal of the dross from their grain. So valuable is such dross considered by some of these dealers that they display considerable eagerness in some places in its purchase at the elevators, doubtless for judicious blending with their own uncleaned and unsorted grain stocks. By such fraudulent practice the dealers in question to a certain extent counteract the efforts made by the Government to place the grain trade on a sound and honest basis. It would seem desirable to prohibit the sale of this dross at the elevators, by which means a check would be placed on some of the nefarious practices so rife in the Russian grain trade, and which form the subject of loud complaints in the grain markets of western Europe.

SPECIAL NOTICES.

BOLTING CLOTH.

Do not order your cloth until you have conferred with us. It will pay you, both in point of quality and price. We are prepared with special facilities for this work. Write us before you order.

CASE MANUFACTURING CO..

Columbus, Ohio.

Office and Factory, 5th Street, north of Naughten.

TOLEDO MILL PICKS AND STONE TOOL MFG. CO.

Manufacturer

and Dresser of

MILL PICKS.

Made of the best double-refined English cast steel. All work guaranteed. For terms and warranty, address, GEO. W. HEARTLEY, No. 297 St. Clair Street, Toledo, Ohio. Send for Circular.

N. B.—All Mill Picks ground and ready for use (both old and new) before leaving the shop. No time and money lost grinding rough and newly dressed Picks. All come to hand ready for use.

ALSO MANUFACTURERS OF

Shafting, Pulleys, Hangers, Coupling, Machine and Jobbing, Etc., Etc.

Practical Notes

CRUSHED STEEL FOR CUTTING.—Crushed steel is said to be coming into use for cutting stone. It appears to be made by quenching very high-carbon steel in cold water from an excessively high temperature, such as would overheat steel for most purposes. This renders it not only hard, but rather brittle, so that it is possible to pulverize it. It is then crushed in a stamp mill and sifted closely to size. It is said to be not only cheaper but more effective than emery, giving a better and quicker polish, and lasting much longer.

GENERAL NOTES.

A VERY interesting comparison of wages and possibilities of saving in various countries appears in the Boston "Globe." It is the testimony of a workingman now resident in Philadelphia who has lived and worked successfully in Russia, Germany, Belgium, France, Sweden and the United States. In each country he kept a careful record of his wages, cost of living and his savings. This is the summarized result:

	Per Day.	Per Week.	Per week— Cost of living.	Per week— Net savings.
Russia—St Petersburg, '70-72, surgical instruments.....	\$.44	\$ 2.64	\$1.10	\$1.54
Systerback, '72-74, tool-maker.	.77	4.62	1.65	2.97
Germany—Aachen, 1876, surgical instruments.....	.96	5.76	3.12	2.64
Belgium—Luttich, '76-78, surgical instruments.....	.80	4.80	3.00	1.80
France—Paris, '78-80, surgical instruments.....	1.80	10.80	5.20	5.60
Sweden—Stockholm, '85-86, machinist.....	1.22	7.32	2.70	4.50
United States—Philadelphia, '89-90, machinist.....	2.50	15.00	7.60	8.00

POINTS IN MILLING.

SHORT-SYSTEM milling got something like a blacked optic in the convention of Pennsylvania millers at Reading two weeks ago. The committee on "machinery and processes" administered the blacking in these remarks in their report to the convention for the past year: "The long and short systems are still agitated, but we think that it is conceded by the leading millers in our association that 3 to 4 breaks on wheat are sufficient; any more than 4 a superfluity. But 5 or 6 pairs of rolls should be used in mills of 100 barrels or less for finishing. Some mill-builders are advertising 4 pairs of rolls, 2 reductions on wheat and 2 on middlings. In our opinion this is radically wrong. How any miller can make a finish on tough wheat with 2 pairs of rolls is above our comprehension. A great number of these little mills are being built, and it is a notorious fact that, where they come in direct competition with mills of plenty of roll surface and sufficient bolts to handle the stock scientifically, they are a total failure and a curse to their owners."

CERTAINLY that statement is explicit enough for all practical purposes. The assertion is unqualified that short mills are a "total failure" and "a curse to their owners." The men who build short mills are treated to a severe censure by implication. Considering the character and influence of the Pennsylvania Millers' State Association, this report of this committee is important. Pennsylvania is full of small mills and short mills, and scores are contracted and building. All the owners, present and prospective, of small short mills are now told that their plants are "total failures" and "a curse to them," and that competition with large and long mills is simply an impossibility. The report reads like an echo of the sayings of the anti-shorts two and three years ago, when the abbreviating process was being perfected.

THE report was adopted, and thereby the Pennsylvania millers who belong to the association officially take a stand against what is generally known and largely practiced as short-system milling. I believe no other association has gone so far as to place an official seal of either commenda-

tion or condemnation on any system of milling. Millers are already asking what has caused this action by the Pennsylvania flour-makers. Who knows?

SO FAR as practical flour-making is concerned, the only interest attaching to this official declaration attaches directly to its truth or falsity. If it is a true declaration, it ought to be made and widely published. If American milling is on a wrong track, the millers concerned should be warned. If the declaration is a false one, the short millers are the men who should come to the front and pronounce it false. If short milling is good, profitable and practicable, every effort should be made to make the short system general.

WHAT is the truth in this case? In my journeys on the road I meet many millers, of all "sizes" and all shades of opinions, and among them are scores of millers running small short plants in direct competition with large and long mills, and I do not recall one who has ever complained that his plant was or is "a total failure and a curse" to him. My note-book contains statements made by short millers during nearly three years, and nowhere do I find either a statement or a complaint that would confirm the Pennsylvania decision. On the other hand, in all cases where competition with long plants is direct and unmistakable, the assertion is plain and unqualified that the short producers have held their own and even gained in the market.

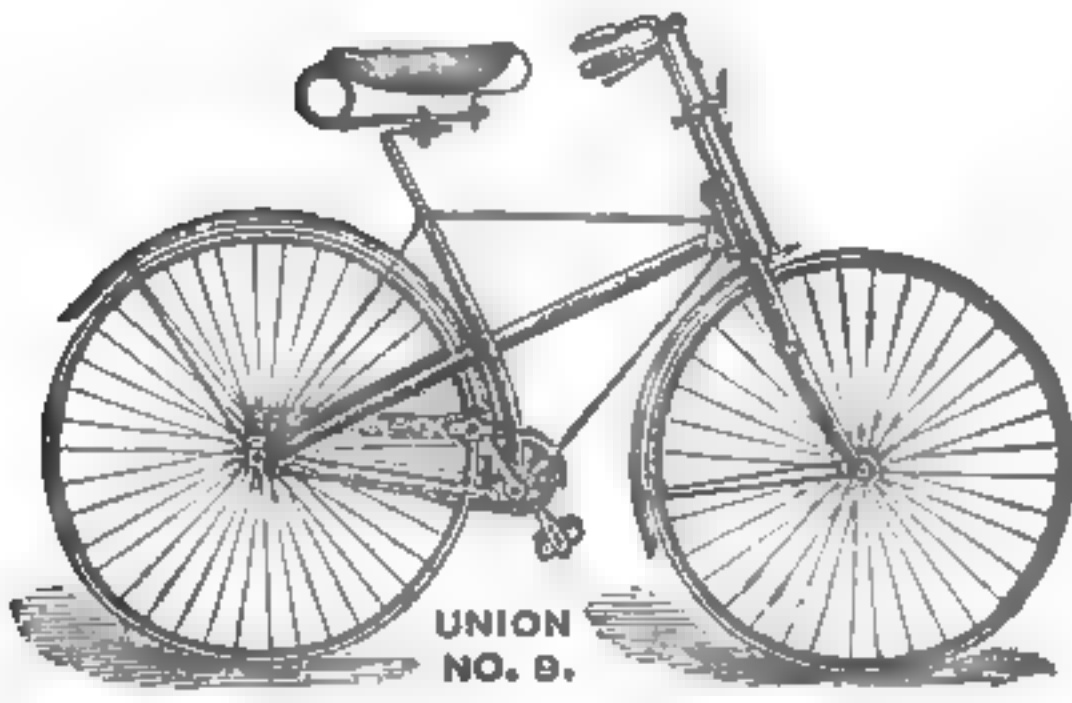
Now if, in Pennsylvania, it is a "notorious fact" that short mills are "a total failure and a curse" in direct competition with long mills, that committee has only to make a list of such failures, and publish it, to secure the wiping out of all short mills in the vicinity of long mills. Can that committee make such a list? It would pay the long-system builders to canvass the field and make a census of the short failures directly and confessedly the result of long competition, not only in Pennsylvania, but everywhere throughout the United States. I do not believe the Pennsylvania verdict disinterested, satisfactory or decisive.

DIMINISHED BREADSTUFF EXPORTATIONS.

Deficient crops and increased prices for cereals are reducing breadstuff exports very considerably. During the month of September the wheat grain exports amounted to only 2,005,676 bushels, worth \$1,769,902, against 3,893,272 bushels, worth \$3,185,217, in September, 1889. During the three months ending September 30th this year the wheat exports were 11,702,737 bushels, worth \$10,720,299, against 13,969,700 bushels, worth \$11,781,315, during the corresponding months last year. The wheat flour exports in September this year were 738,096 barrels, worth \$3,526,174, against 858,975 barrels, worth \$4,141,658 in September last year. During the three months ending September 30th this year the flour exports were 2,320,257 barrels, worth \$10,902,355, against 2,717,508 barrels, worth \$13,070,782, in the corresponding months last year. The total breadstuff exports in September were valued at \$7,194,319, against \$9,799,304 last year; for the three months \$28,649,198, against \$32,969,025 last year; for the nine months ending September 30th this year \$110,688,881, against \$90,198,734 last year.

The minor lines show a general falling off. The barley exports in September were worth \$16,051, against \$160,911 last year; the corn exports \$1,774,095, against \$2,065,485; the corn-meal exports \$76,979, against \$57,469; the oats exports \$15,374, against \$127,243; the oatmeal exports \$15,731, against \$14,785; the rye exports \$13, against \$46,536. The three-month totals compare as follows: Barley \$71,497, against \$214,235; corn \$6,182,784, against \$7,131,515; oats \$238,095, against \$257,254; rye \$158,061, against \$201,949. There is a prospect of still higher prices in the United States, which implies a further decrease in exportations of breadstuffs. The importing countries of Europe are making strong efforts to supply their wants without calling upon the United States, and it is safe to say that they will not take from us a single bushel of any cereal which they are not forced to take.

THE UNION



Is the peer of High Grade Bicycles in the country. It combines with its beauty, a rare degree of both strength and ease, and the exquisite workmanship on the wheel puts it far ahead of all competitors.

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UNION CYCLE MFG. CO., - HIGHLANDVILLE, MASS.

THE BEST AND CHEAPEST CORN AND COB CRUSHER

IN THE WORLD.

All wearing parts cast of a steel mixture. Notice difference in construction. Most area where most work is done, where all other crushers have least area where most work is done. Low priced machinery is not the cheapest, considering durability and efficiency. Sent on 80 days' trial when satisfactory reference is furnished.

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MILL.
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RIGHT-HAND RUNNER.

R. C. McCULLEY, LANCASTER, PENN.



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WIRE CLOTH

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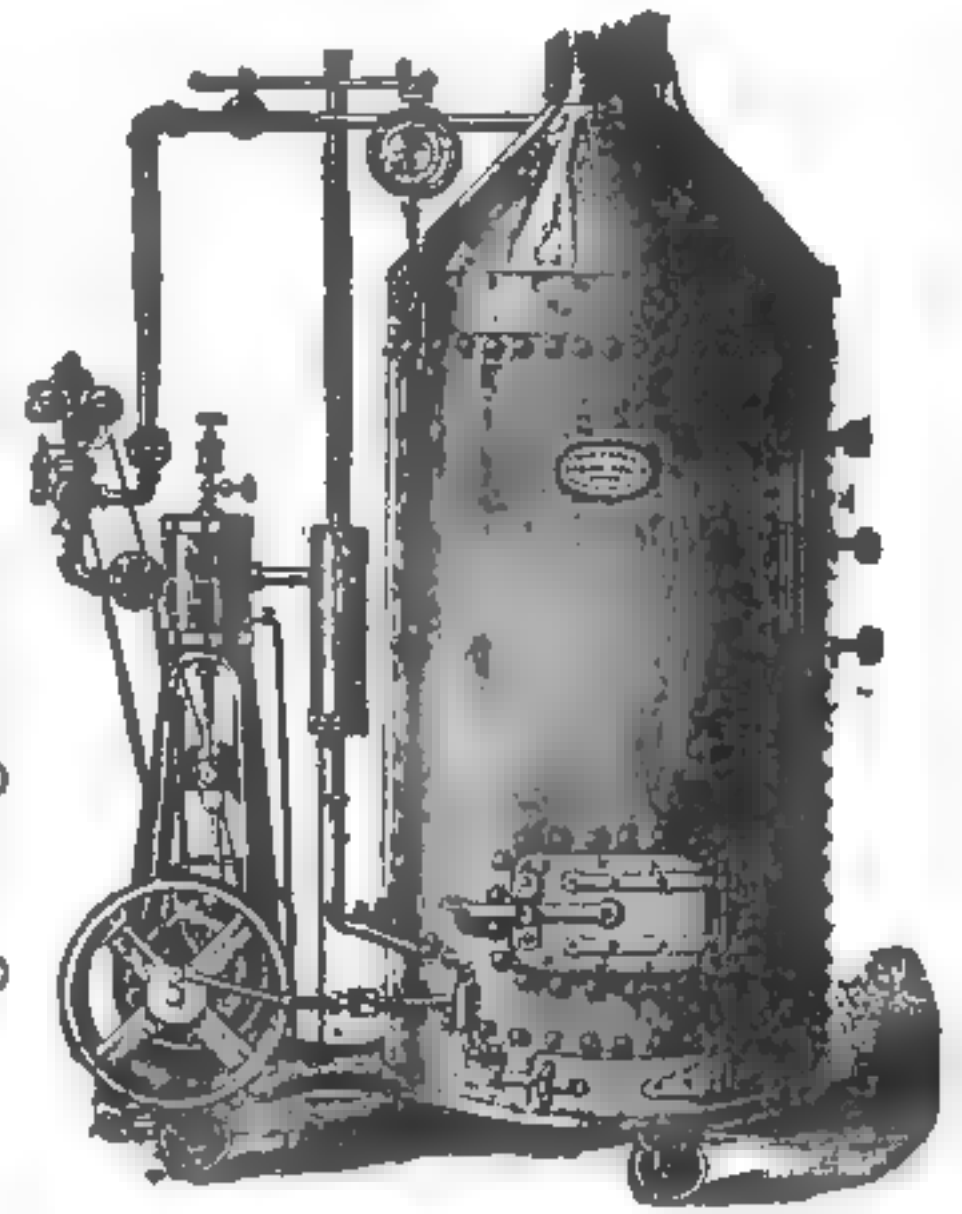
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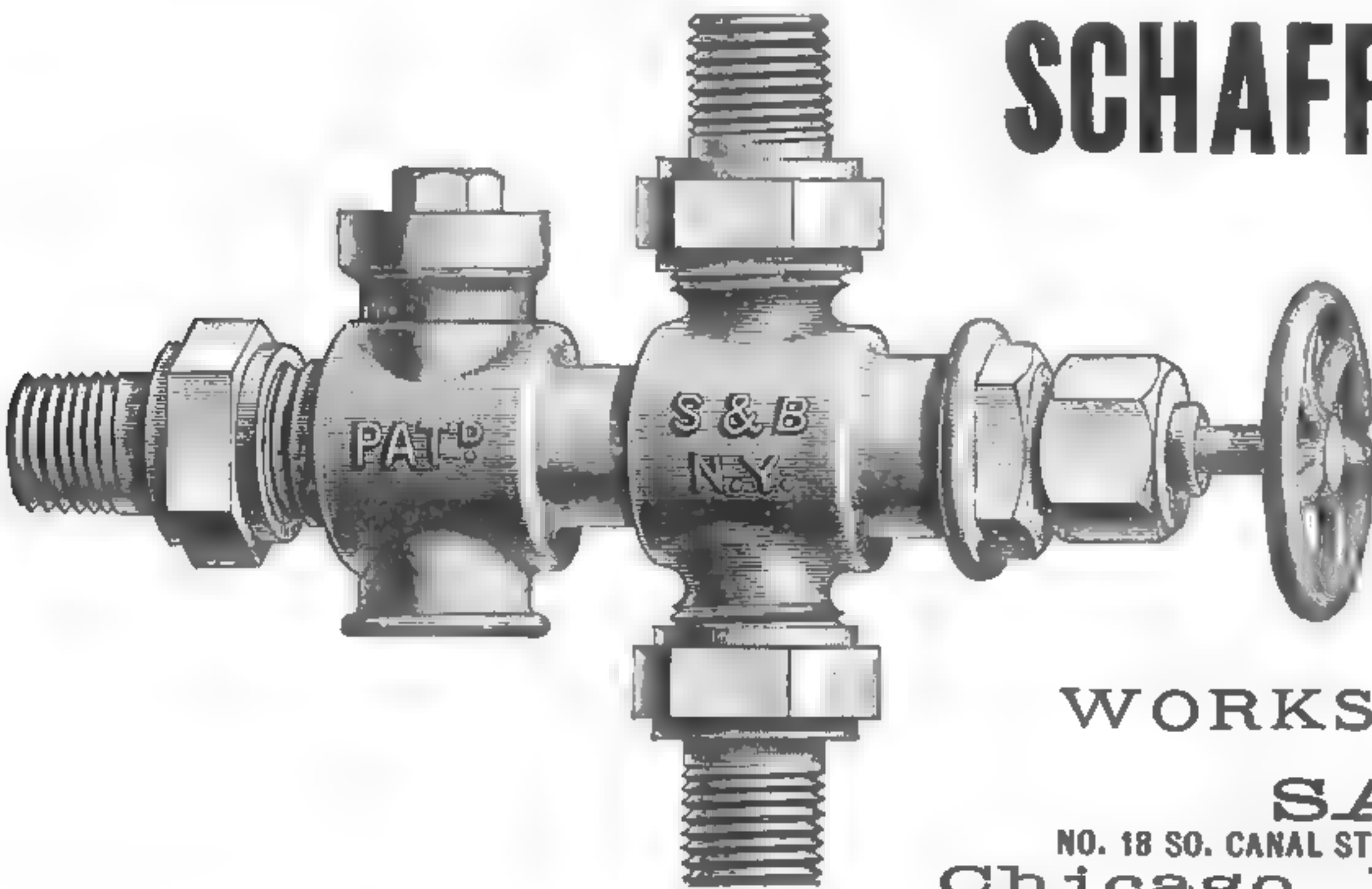
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Tonawanda N. Y.

Sometimes Corrugated Iron is represented to be "just as good as" our Patent Edge Corrugation. While this is complimentary to our material, unfortunately it does not work out well in practice. The only Corrugated Iron that can be recommended for roofing is manufactured by

The Cincinnati Corrugating Co.
PIQUA, OHIO.



SCHAFFER & BUDENBERG,

—MANUFACTURERS OF—

Pressure Gauges for all Purposes

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IMPROVED RESTARTING INJECTORS
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PYROMETER AND THERMOMETER, STEAM TRAPS, REDUCING VALVES, AND ENGINE AND BOILER APPLIANCES IN GENERAL.

WORKS AT BROOKLYN, N. Y.

SALESROOMS:

NO. 18 SO. CANAL ST.,
Chicago, Ill.

NO. 40 JOHN STREET,
New York.



Roby, Tex., men project a grist-mill.
 Yanceyville, N. C., men project a grist-mill.
 J. K. Claussen, West Point, Neb., builds a mill.
 H. A. Edwards, Bridgeton, N. J., builds a grist-mill.
 Cassels, Pope & Co., Gadsden, Ala., built a grist-mill.
 J. W. Shadewald, feed-mill, Minneapolis, Minn., attached.
 H. W. Parkman & Co.'s grist-mill, San Diego, Cal., burned.
 Apple & Kelsey's flour-mill, Miamisburg, O., burned; loss \$30,000.
 A. Hylak, Chehalis, Wash., is building an 80-barrel roller flouring-mill.
 C. Kelsey's Dryden Mill, near Alexanderville, O., burned; loss \$10,000.
 C. L. Gunley, Morseley's Bluff, La., wants grist-mill machinery outfit.
 Bromwell & Co., Baltimore, Md., are putting in a hominy or corn mill plant.
 J. S. Seper, Eufaula, Ala., has points on a grist-mill to be built in that place.
 Long, Pierce & Elam, millers, Milton, Ore., dissolved, Pierce & Elam continuing.
 Robert Shaw & Co., flour-mill, Litchfield, Minn., admitted two partners to their firm.
 The Weston Roller Mills, Weston, Ore., dissolved, J. W. Young retiring from the firm.
 Pennsylvania men project a flour-mill at Johnson City, Tenn., in the Carnegie addition.
 Menno, S. D., men have formed a \$25,000 stock company to build a steam flouring-mill.
 J. W. Smith, Gallatin, Tenn., has points on a new \$5,000 stock company formed to build a flouring-mill.
 Chas. E. Manor, Stanley, Va., has points on a new stock company formed to build a 100-barrel roller mill.
 J. W. Weller, Fultonham, O., has placed his order with The Case Mfg. Co., Columbus, Ohio, for 8 pairs of rolls, 4 scalping-reels and other machinery.
 The Case Mfg. Co., Columbus, O., have an additional order from Jacob Holschuch, Willowood, Ohio, for 2 additional pairs of rolls for grinding corn and feed.
 The Victor Mills Co., Morgantown, W. Va., will built a 30,000-bushel grain-elevator and remodel their mill to a complete roller corn-mill; they want machinery.
 There is now more beet than cane sugar consumed. In 1881 the total of the world's production of cane sugar was 2,006,900 tons, and of beet sugar 1,774,600 tons. In 1890 the total of cane was 2,246,000 tons, and of beets 3,360,000 tons.
 The Case Mfg. Co., Columbus, O., have received the contract of Wm. McCool, San Jacinto, Cal., for the necessary rolls, scalpers, flour-dressers, centrifugals, purifiers and other machinery and supplies for a full roller mill on the Case short system.
 Wall & Wattles, Sherman, Mich., have placed their order with The Case Mfg. Co., Columbus, O., for all the rolls, scalpers, flour-dressers, centrifugal reels, purifiers and other machinery and supplies for a full roller mill on the Case system.
 The Case Mfg. Co., Columbus, O., have received the contract of J. L. Casson, South Auburn, Neb., for all the necessary rolls, round scalpers, flour-dressers, bran-dusters and other machinery and supplies for a full roller mill on the Case system.
 The Case Mfg. Co., Columbus, O., have orders for the Hoover automatic scale from W. Smithpeter, Buffalo, Mo., Chas. Jenner, Etna Mills, Cal., Daniels & Inskeep, Moorfield, W. Va., Paxson & Seeds, Manchester,

Iowa, Jos. Wagner Mfg. Co., San Francisco, Cal., and the Kansas City Milling Co., Kansas City, Mo.

Says the Fargo, N. D., *Daily Republican*: Talk about crop counties, how is this for the Red River Valley: The counties of Pembina, Walsh, Grand Forks, Traill, Cass and Richland raised in 1890 about 392,000 bushels of wheat; in 1889 about 17,195,163 bushels and in 1890 (estimated) 21,700,000 bushels; and never a crop failure in her history. Where is the equal of the Red River Valley as a farming country?"

The amount of produce a well-managed garden is capable of yielding is shown by the following statement recently made by G. W. Hallock and Son concerning their 58 acres of land near Greenpoint, Long Island, N. Y., during last year: 3,750 bushels of onions and 4,500 bushels of carrots; early cabbages 5,500 barrels; early potatoes 2,500 bushels; strawberries 11,000 quarts; onions from sets 2,260 bushels; white beans 160 bushels; carrots 11,000 bushels; late potatoes 450 bushels; onions from seed 3,900 bushels; ears of corn 2,000 bushels; Brussels sprouts 500 bushels; potato onion sets 10 bushels; carrot seed 40 pounds; onion seed 100 pounds; Brussels sprout seed 4 pounds; cabbage seed 2 pounds; Hungarian grass 3 tons; cabbage plants to carry over 250,000.

A correspondent writing from Duluth says: "Ever since the new crop of wheat began to come in, dealers have claimed that the state inspectors were putting too high grades on the lower qualities of wheat, particularly that from North Dakota, considerable of which contains green kernels. The millers have absolutely refused to buy wheat containing these kernels, and the elevator men have shipped it to outside points or stored it. New York dealers have made complaints, saying that they can not sell such grain to the foreign trade, and that there is no demand for it. These green kernels are injurious to flour when ground with good wheat, and, there being no way of removing them, there is a prospect that wheat containing such kernels will hereafter be inspected as no grade."

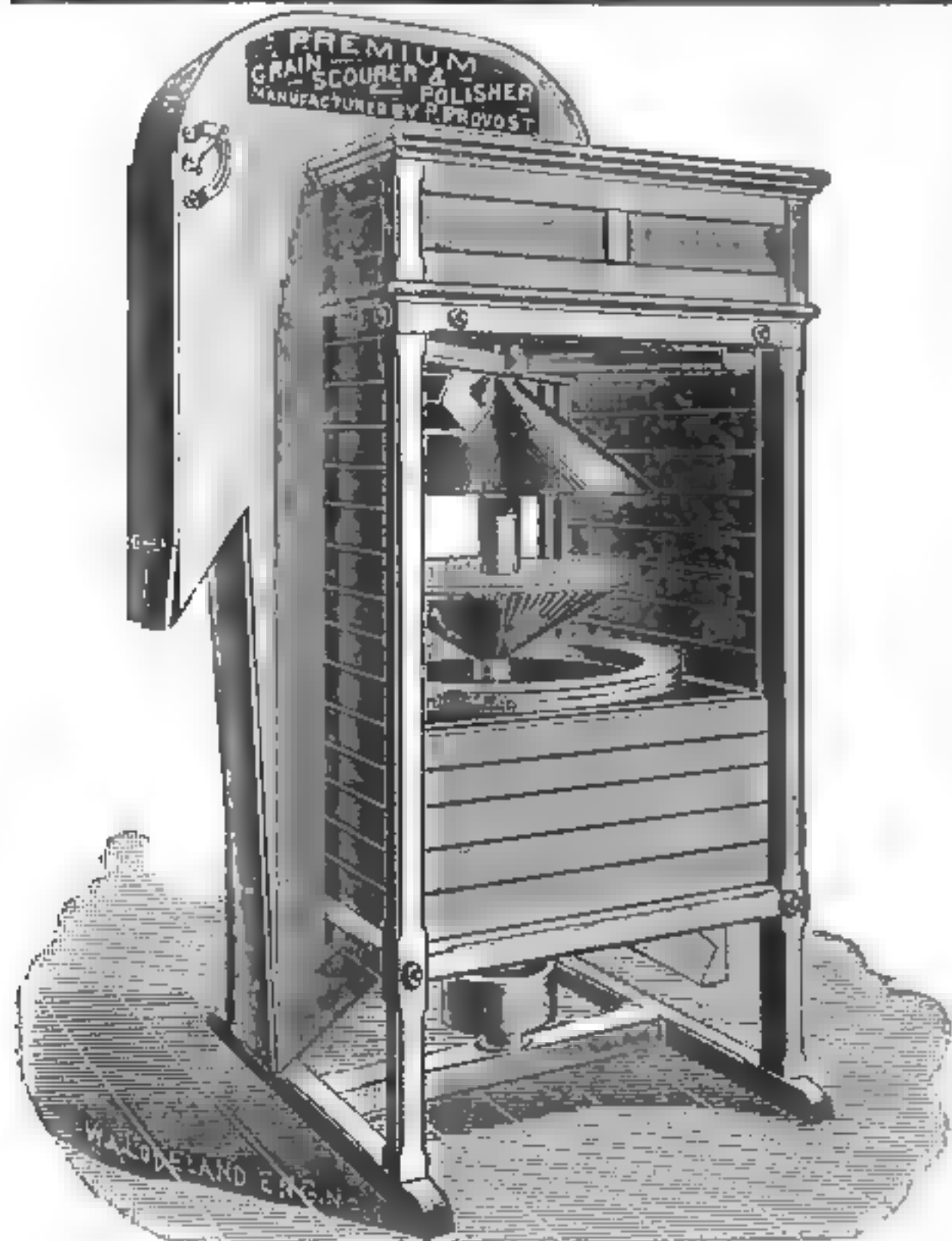
THE QUEEN PAYS ALL EXPENSES.—The Queen's last "Free Trip to Europe" having excited such universal interest, the publishers of that popular magazine offer another and \$200 for expenses to the person sending them the largest list of English words constructed from letters contained in the three words "British North America." Additional prizes consisting of Silver Tea Sets, China Dinner Sets, Gold Watches, French Music Boxes, Portiere Curtains, Silk Dresses, Mantel Clocks, and many other useful and valuable articles will also be awarded in order of merit. A special prize of a Seal Skin Jacket to the lady, and a handsome Shetland Pony to girl or boy (delivered free in Canada or United States) sending the largest lists. Every one sending a list of not less than twenty words will receive a present. Send six U. S. 2c. stamps for complete rules, illustrated catalogue of prizes, and sample number of *The Queen*. Address The Canadian Queen, Toronto, Canada.

A NEW METHOD OF TREATING DISEASE.

HOSPITAL REMEDIES.

What are they? There is a new departure in the treatment of disease. It consists in the collection of the specifics used by noted specialists of Europe and America, and bringing them within the reach of all. For instance the treatment pursued by special physicians who treat indigestion, stomach and liver troubles only, was obtained and prepared. The treatment of other physicians, celebrated for curing catarrh was procured, and so on till these incomparable cures now include disease of the lungs, kidneys, female weakness, rheumatism and nervous debility.

This new method of "one remedy for one disease" must appeal to the common sense of all sufferers, many of whom have experienced the ill effects, and thoroughly realize the absurdity of the claims of Patent Medicines which are guaranteed to cure every ill out of a single bottle, and the use of which, as statistics prove, has ruined more stomachs than alcohol. A circular describing these new remedies is sent free on receipt of stamp to pay postage by Hospital Remedy Company, Toronto, Canada, sole proprietors.



THE PREMIUM GRAIN SCOURER AND POLISHER.

This machine is guaranteed to do more and better scouring than any other machine in existence. Is easily set up, requires little or no care, except oiling.

Samples of Work Sent on Application

Address for full particulars,

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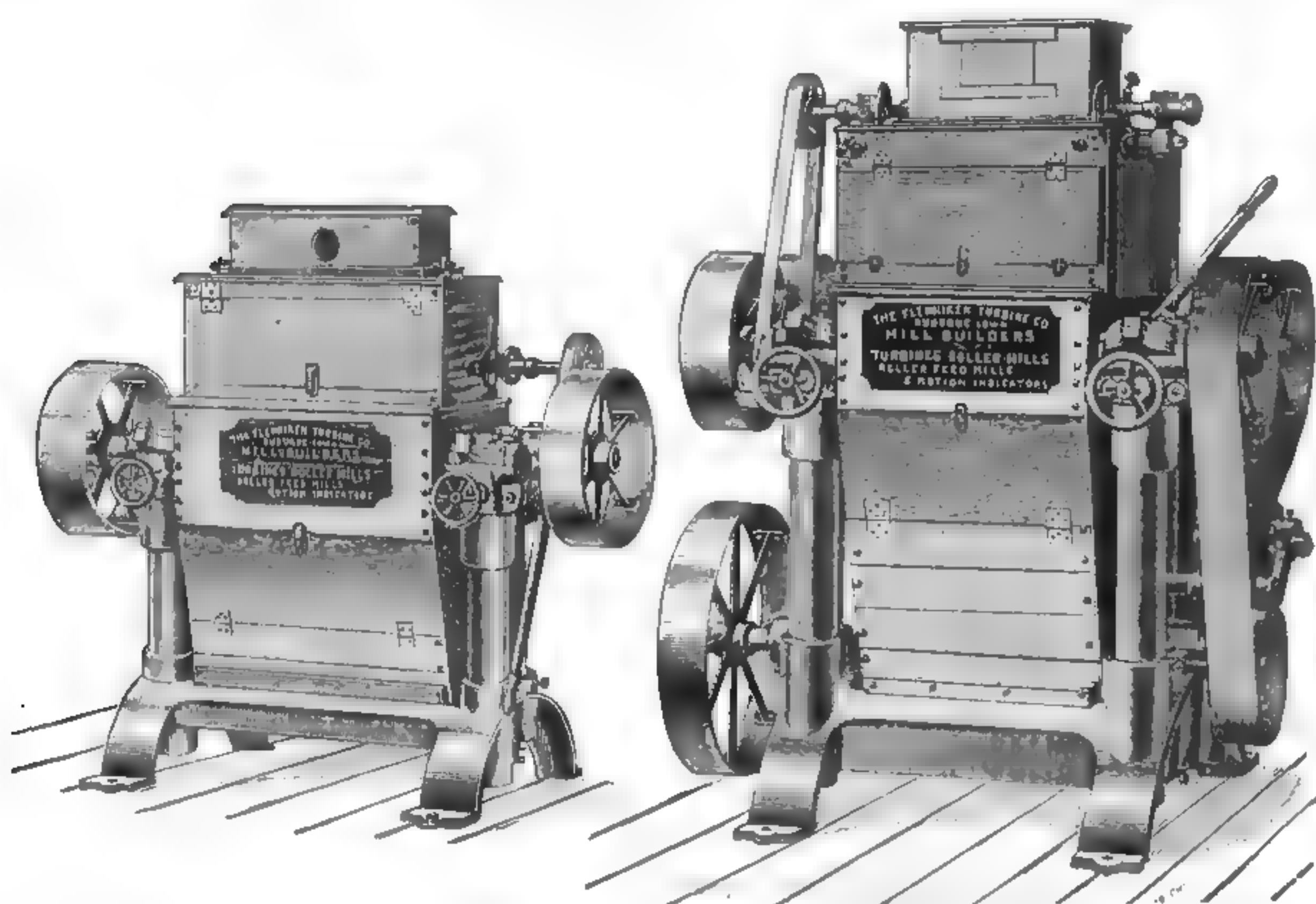
MINNEAPOLIS, MINN.

ONE REDUCTION TO THE FRONT!

*Ye jolly millers, one and all,
Who granulate with burrs,*

A Moses has Come to Deliver You from Egypt. Cease Trying to Make Bricks without Straw. The Red Sea of Expense Has Been Divided.

The Wilderness of Reductions has Been Shortened. There is Manna in Abundance for Those Who Believe. Listen to the Glad Tidings of Great Jov!



ONE REDUCTION ON ROLLS IS A SUCCESS! Two years of experience in a dozen States, with all kinds of Wheat and diversified climates, has justified us in recommending its adoption in place of burrs in each and every case, whether for grinding Wheat, Rye or Buckwheat. We have perfected Roller Mills, Bolts and Scalpers peculiarly adapted to the wants of Small Mills, and all our machines *infringe no patents*, and no claims are made that they do.

Having consummated a bargain with **MR. O. C. RITTER**, the author and patentee of **One Reduction**, which gives us the *exclusive right* to construct mills under his patents, our patrons in the future will receive a license from Mr. Ritter.

SPECIALTIES! { Graham Roller Mills, Round Reels and Scalpers, Sectional Round Reels, Grain Separators, Motion Indicators. Before buying any of these machines send for our prices and descriptive circulars. } **SPECIALTIES!**
Second-Hand Machinery, and Bargains in Every Line.

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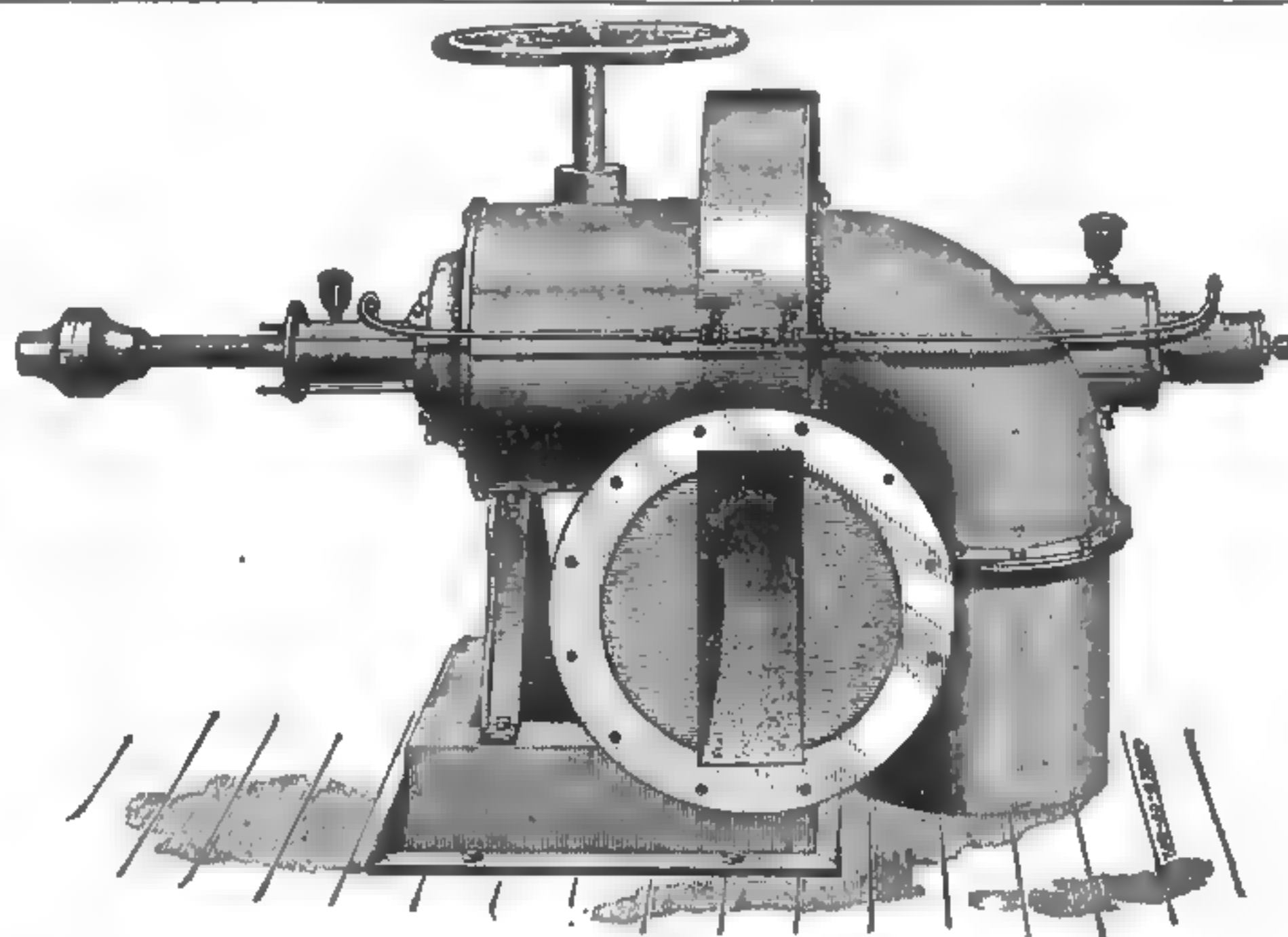
The Best Turbines!

VERTICAL OR HORIZONTAL,
With or Without Iron Flumes,

—BUILT BY THE—

Flenniken Turbine Co.

DUBUQTTE, - IOWA.



EUROPEAN ECHOES.

ALL the flour-mill proprietors in Lisbon, Portugal, have combined to close their mills in order to try to compel the government to allow them to import as much wheat as they like, and to repeal the recent law forbidding them to import more than one-half of the wheat ground.

SAYS the Paris "Bulletin des Halles" in a recent issue: The Marseilles millers fear that they will all have to shut down, owing to lack of water, and are consequently buying no wheat. Flour has decidedly risen in price. The greater number of newspapers agree with us that the official crop estimate is greatly over-estimated, it being argued that, if the crop were really so large, prices would not be 4 francs to 5 francs higher than last year, as they now are.

FOLLOWING up the repeated assertions that, if the working people of Europe could be induced to take Indian corn for food, it would tax the corn-producing countries of the world to meet the demand which such food acceptance would create, and be a great boon to the consumers, the United States Consul at Limoges, a practical and able man, says that in order to introduce American corn more extensively in France, several facts demand careful consideration. Indian corn as an article of human food is practically unknown, and the advantages which it possesses as an article of diet need to be set before the French people. Buckwheat, rye and in some places chestnuts are used by the poorer classes for bread. These are higher priced and less nutritious than American corn. It will require a little care and even a comparatively small outlay of money to introduce American corn as an article of human food, but after the taste has been cultivated it will be possible to import into France corn in far greater quantities than wheat or any other cereal, because France produces almost, if not quite, enough wheat for the home market; but she never will be able to grow corn to any extent.

ACCORDING to governmental figures, Great Britain and Ireland imported from the United States and other countries during the calendar year 1889 the following amounts of wheat maize and oats, the table showing values and percentages furnished by the various exporting countries:

Articles and countries from which imported.	Quantities.	Values.	Per cent. of total.
Wheat—	cwts.		
United States.....	17,009,036	\$33,185,514	30.29
Russia.....	21,310,004	38,933,917	35.54
Germany.....	2,537,990	4,860,388	4.44
Roumania.....	2,825,592	5,234,295	4.78
British North America....	1,170,650	2,276,880	2.08
British East Indies.....	9,218,204	16,071,815	15.12
Australasia.....	1,406,060	2,990,265	2.73
Other countries.....	3,074,351	5,494,284	5.02
Total.....	58,551,887	\$109,547,358	100.00
Maize or Indian corn—			
United States.....	22,501,135	\$25,916,536	62.07
Roumania.....	5,215,364	6,151,757	14.73
Russia.....	3,055,298	3,574,517	8.56
Argentine Republic.....	1,691,348	1,807,331	4.33
Morocco.....	503,598	627,243	1.50
British North America....	2,866,598	3,251,625	7.79
Other countries.....	358,984	437,128	1.02
Total.....	36,192,325	\$41,066,137	100.00
Oats—			
United States.....	148,946	\$ 210,603	.97
Russia.....	13,966,926	18,821,877	86.70
Sweden.....	1,568,167	2,234,945	10.27
Holland.....	124,791	270,002	1.28
Germany.....	106,952	148,003	.68
Other countries.....	74,785	21,719	.10
Total.....	15,990,567	\$21,707,149	100.00

SAYS the London "Millers' Gazette" of September 29: The "Standard" of Tuesday last, in its agricultural article, complained of the variety of the methods adopted in reducing our flour imports to their equivalent in wheat. Some calculations are based on a yield of 70 per cent. of flour from wheat, and others on 72½ per cent. and 75 per cent., while

the Board of Trade allows 81 per cent. The result is a chaotic variety of ideas as to what our actual wheat and flour imports in the past season have been. The Board of Trade figures are 18,279,271 quarters, while, allowing only 70 per cent. as the average yield of flour from wheat, the imports mount up to 19,154,932 quarters, a difference compared with the official figures of 875,661 quarters. Looking at the matter from another side, it would appear that, according to the Board of Trade, we imported equal to 64,112,903 hundredweights of flour, while according to the authority who bases its calculations on a 70 per cent. yield, the total imports in flour would only be 57,656,289 hundredweights, which of course makes the comparison simply ridiculous. This journal two or three years ago made inquiries among millers on the subject, and found that, while some millers using high-class wheats obtained 72 to 74 per cent. from the uncleaned wheats, few got less than 70 per cent., the average being about 72 per cent., and there is little doubt that with the best method of milling this percentage should be attained. It is said by chemists that the floury portions of a wheat berry represent 84 per cent. of the whole, but this is probably only scientifically correct. In old-time-milling, when the grinding was done by stones, and the dressing (coarse) by a solitary reel, yields of 75 to 78 per cent. were by no means uncommon; but it is not stated what percentage of bran found its way into the flour sack.

ALLEGED MILLING POETRY.

A SPRING-WHEAT RONDEAU.

The off-grade wheat of this here crop
Falls on the miller with a whop
That lays him out all stark and cold,
That takes away his hopes of gold,
And makes him mad enough to hop!
It makes a flour that turns to slop
Where bread should be in baking-shop,
And bakers eke with millers scold
The off-grade wheat!
But crossing streams men no nags swap;
The mills and ovens can not stop;
The wretched grain must all be rolled,
The flour must every pound be sold,
Though all the world sit down on top
The off-grade wheat!

Duluth, Minnesota, October 11, 1890.

—Bang.

THE YAHOO*.

The Yahoo frets upon its chair.
A dark bay frown is in its hair.
A milling paper lying near
Has put the Yahoo on its ear.
It speaks, and this is what we hear:
"You're tottering, tottering."
For full ten years this curious thing
Has had no other notes to sing,
But ever and anon, when flayed
By milling papers strong arrayed,
It wrecks this chestnut, undismayed:
"They're tottering, tottering."
Likely, when Gabriel toots his trumpet,
And the Yahoo gets its final thump,
A wingless thing, with both eyes out,
Of species very much in doubt,
Will at the monthlies feebly shout:
"You're tottering, tottering."

*THE MILLING WORLD'S pet name for the ex-milling paper at Minneapolis.
—Kansas City "Modern Miller."

CATARRH.

CATARRHAL DEAFNESS—HAY FEVER.

A NEW HOME TREATMENT.

Sufferers are not generally aware that these diseases are contagious, or that they are due to the presence of living parasites in the lining membrane of the nose and eustachian tubes. Microscopic research, however, has proved this to be a fact, and the result of this discovery is that a simple remedy has been formulated whereby catarrh, catarrhal deafness and hay fever are permanently cured in from one to three simple applications made at home by the patient once in two weeks.

N. B.—This treatment is not a snuff or an ointment; both have been discarded by reputable physicians as injurious. A pamphlet explaining this new treatment is sent free on receipt of stamp to pay postage, by A. H. Dixon & Son, 337 and 339 West King street, Toronto, Canada.—*Christian Advocate.*

Sufferers from Catarrhal troubles should carefully read the above.

LITTLE GIANT WATER WHEEL

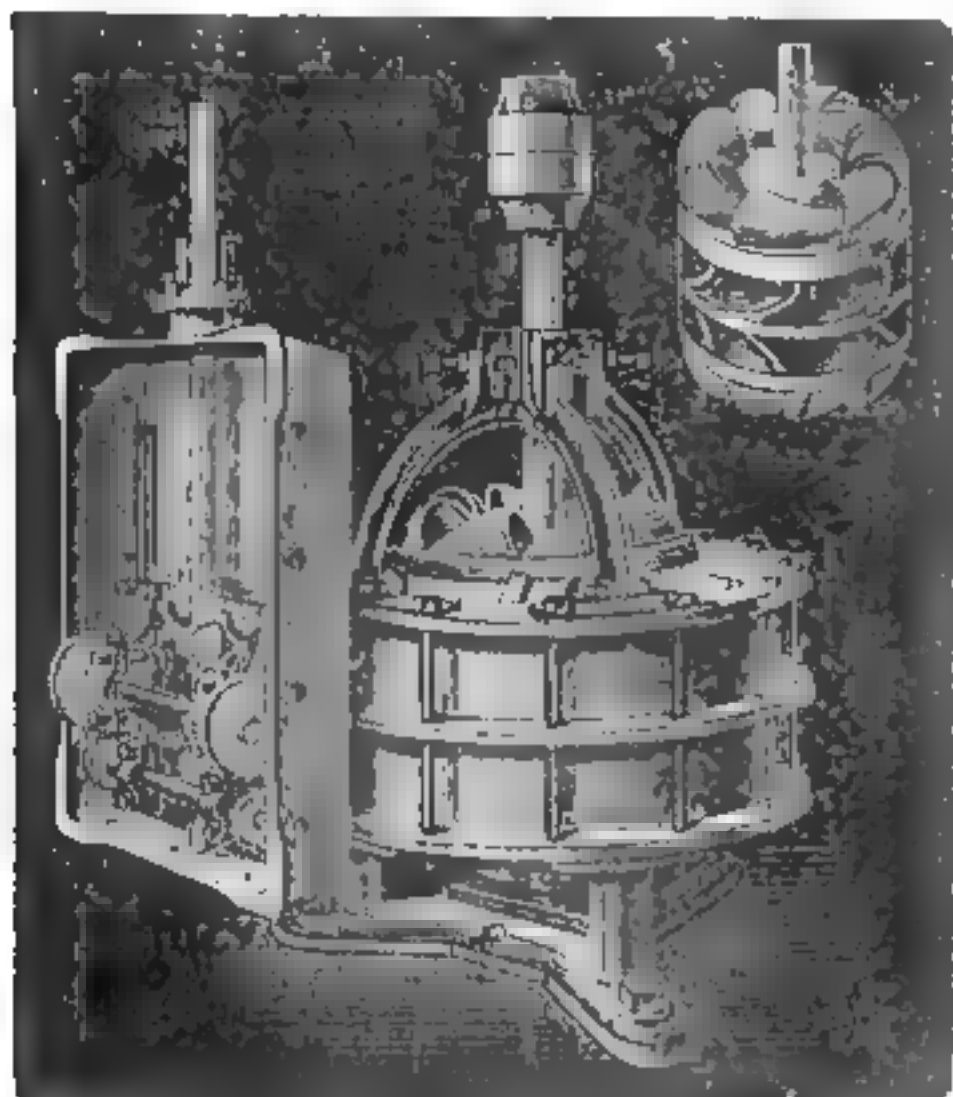
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MUNSON BROS.

UTICA, - - N. Y.

Simple in Construction, Durable & Cheap.

SEND FOR PRICES.



CAMERON STEAM PUMP

THE STANDARD OF EXCELLENCE.

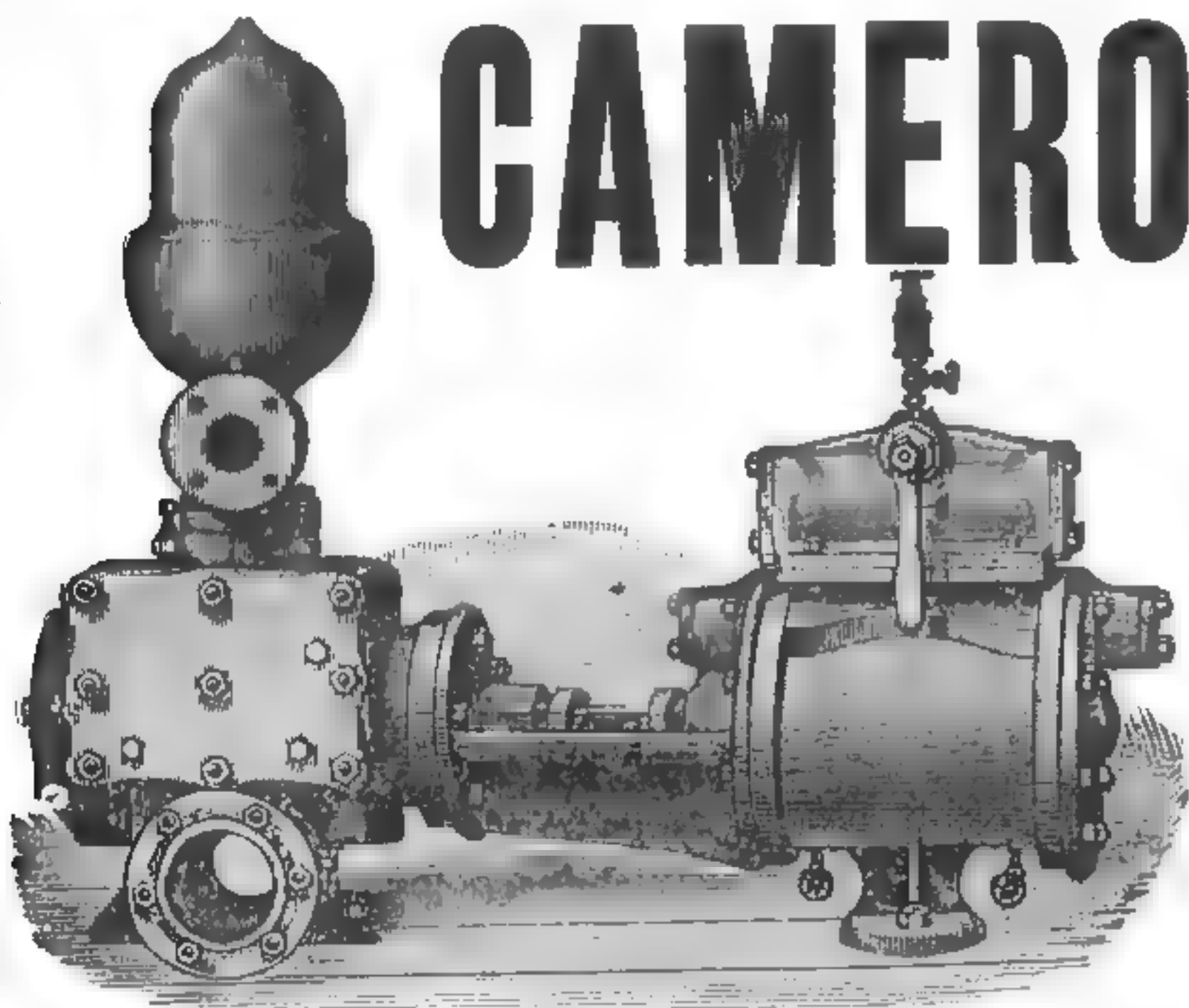
SIMPLE! COMPACT! DURABLE!
"NO OUTSIDE VALVE GEAR."

Steam, Air & Vacuum Pumps in Every Variety

FOR ILLUSTRATED CATALOGUE ADDRESS

THE A. S. CAMERON STEAM PUMP WORKS

Foot of East 28d Street, - New York.



SELF-CONTAINED STEAM ENGINES

Stationary or
Semi-Portable.

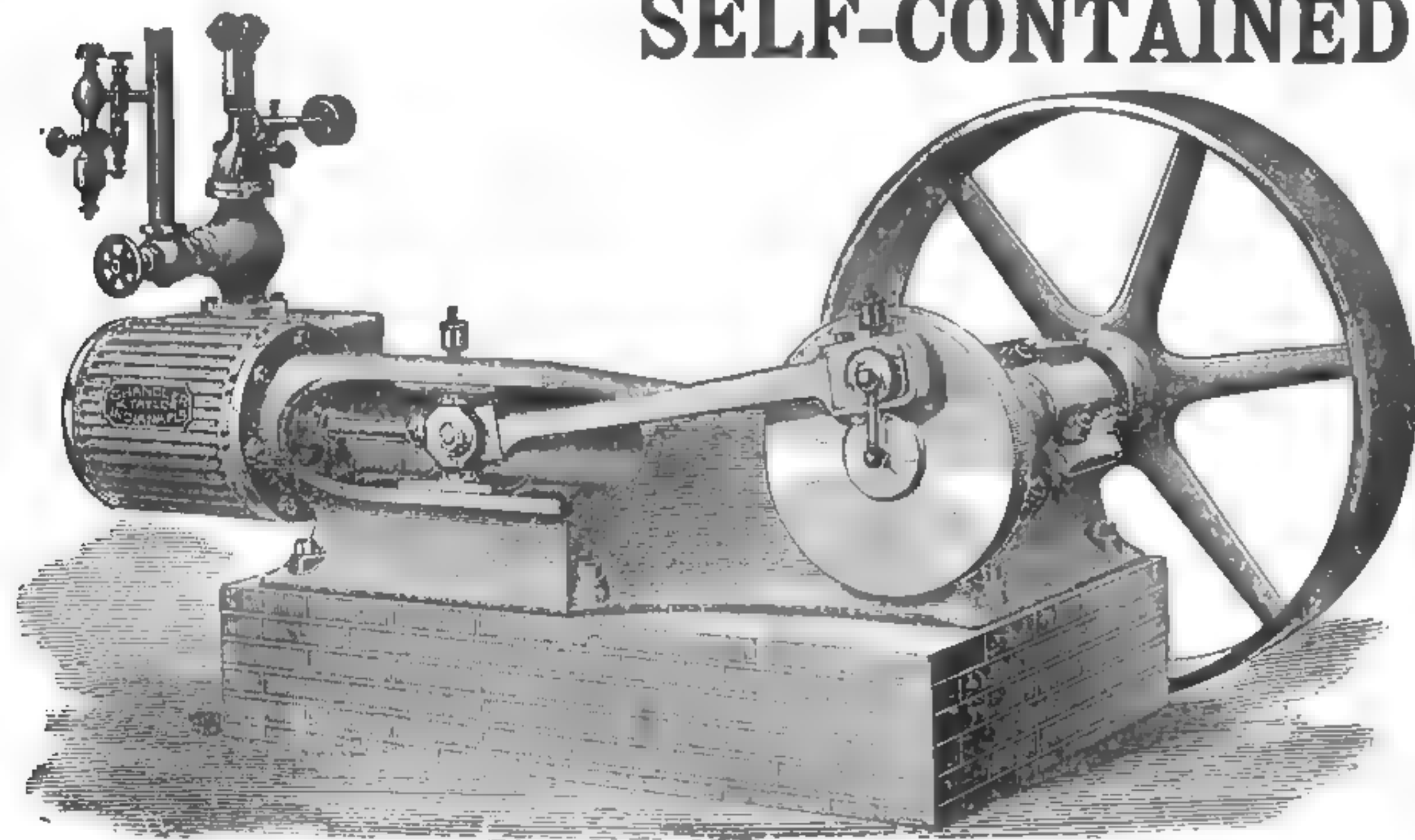
High Standard Maintained.
Prices Greatly Reduced.

WRITE FOR NEW ILLUSTRATED
CATALOGUE NO. 32.

Chandler & Taylor Co.,

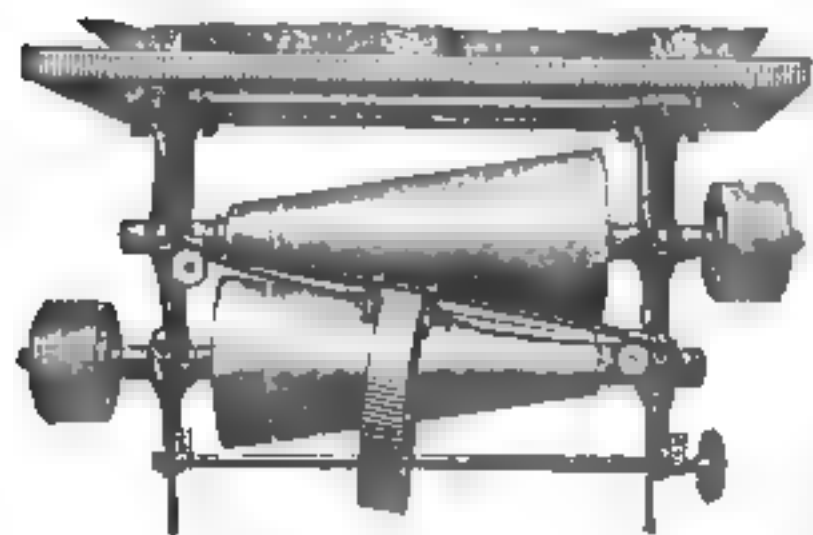
Indianapolis, Ind.

Engines, Saw-Mills and Drain Tile
Machinery a Specialty.

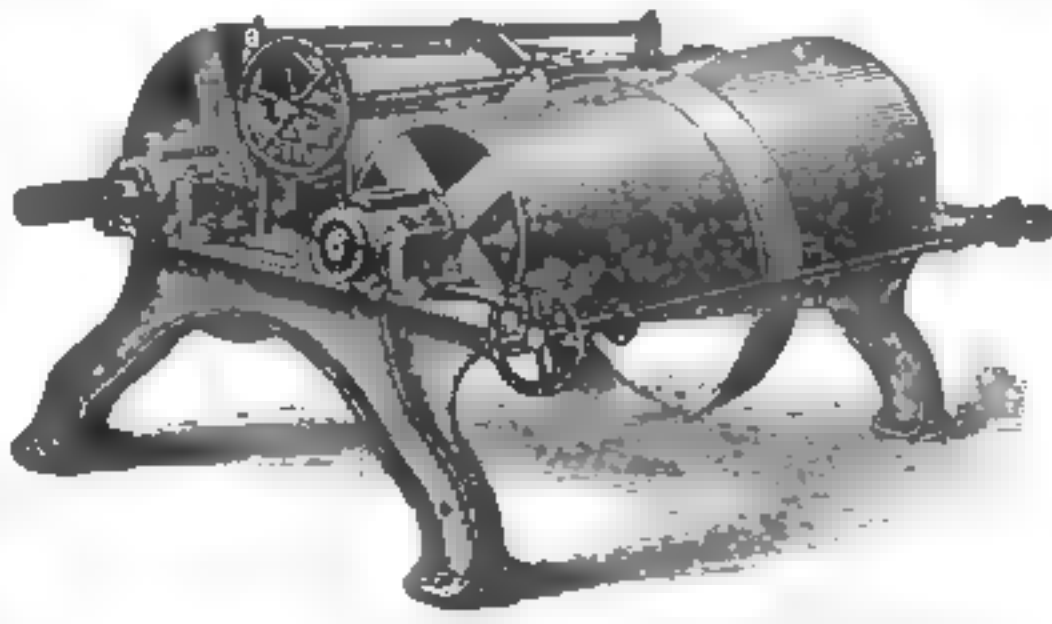


THE EVANS FRICTION CONE & FRICTIONAL GEARING

"PATENTED."



This cut represents a set of hanging cone pulleys. This pattern is intended for that class of machinery that stops and starts at the same speed, and at the same time be able to change the speed more or less while running. These cones are also fitted with a governor where a steady motion is required and the initial power is



fluctuating. All sizes made from $\frac{1}{2}$ Horse Power to 60 Horse Power. **SEND FOR ILLUSTRATED CATALOGUE.**

EVANS FRICTION CONE CO., 85 Water St., BOSTON.

SHIPPERS

CAN SAVE TIME

AND TROUBLE

CASH

BY USING
BARLOW'S
PATENT
MANI FOLD
SHIPPING
BLANKS. SEND FOR
SAMPLE SHEET AND PRICES
BARLOW BROS. GRAND RAPIDS, MICH.



OFFICE OF THE MILLING WORLD,
BUFFALO, N. Y., Oct. 18, 1890.

Friday of last week brought dull and higher markets, on covering of shorts and light offerings in fear of a bullish government crop report. In New York October wheat closed at \$1.06½, with receipts 21,178, exports 83,844, and options 2,312,000 bushels. The government crop report made the wheat yield 402,000,000 bushels, where late estimates had settled on 390,000,000 bushels. The trade adopted two new grades of wheat to cover Kansas or Turkish red wheat. These grades are "No. 2 hard winter" and "No. 3 hard winter." October corn closed at 57½c., with receipts 47,290, exports 33,206, and options 568,000 bushels. The government report of 70.6, against 71 per cent. a month ago, made little difference. October oats closed at 44½c., with receipts 151,882, exports 17,588, and options 180,000 bushels. Wheat flour was quiet, with buyers and sellers too far apart for trade. Receipts were 3,969 sacks and 29,281 barrels, and exports 4,519 sacks and 10,115 barrels. The minor lines were featureless.

Saturday was a day of weak, lower and more active markets, with longs realizing on the government report. October wheat closed at \$1.04½, with receipts 66,513, exports 42,252, and options 1,760,000 bushels. October corn closed at 56½c., with receipts 51,224, exports 80,559, and options 1,248,000 bushels. The government figures indicate a corn crop of 1,550,000,000 bushels. October oats closed at 44½c., with receipts 134,663, exports 15,962, and options 15,000 bushels. The government figures indicate an oats crop of 550,000,000 bushels, or about 8 per cent. higher than the report a month ago. The government report was expected to be bullish, but its figures were decidedly bearish instead. Wheat flour was unchanged and out of demand. Receipts were 5,408 sacks and 33,945 barrels, and exports were 26,320 sacks and 9,064 barrels. The minor lines were featureless.

Monday opened weaker and lower on the whole list, and closed higher all along the line with shorts covering and Hutchinson bulling. October wheat closed at \$1.05½, with receipts 120,020, exports 4,451, and options 1,152,000 bushels. October corn closed at 56c., with receipts 206,988, exports 9,966, and options 736,000 bushels. October oats closed at 44½c., with receipts 212,948, exports 13,409, and options 150,000 bushels. Wheat flour was dull and featureless. Buyers and sellers alike were holding off for a settlement of some sort in wheat. Receipts were 10,844 sacks and 40,776 barrels, and exports 2,407 sacks and 13,695 barrels. The minor lines were featureless. The visible supply in the United States and Canada was:

	1890. Oct. 11.	1889. Oct. 12.	1888. Oct. 13.
Wheat	17,739,032	19,838,919	32,260,201
Corn	8,364,235	12,456,609	10,461,176
Oats	3,989,892	6,537,357	7,737,778
Rye	616,725	1,249,072	1,116,040
Barley	4,189,030	1,043,150	713,762

Tuesday was a day of confused markets, opening stronger on smaller stocks and receipts and higher cables, and closing lower on reports of financial troubles in London. October wheat closed at \$1.05½, with receipts 71,544, exports 6,777, and options 1,680,000 bushels. October corn closed at 56c., with receipts 218,700, exports 10,920, and options 150,000 bushels. October oats closed at 44½c., with receipts 259,720, exports 25,115, and options 300,000 bushels. Wheat flour was slightly firmer, in spite of large stocks reported in Great Britain. Receipts were 9,321 sacks and 51,366 barrels, and exports 4,500 sacks and 5,634 barrels. The minor lines were featureless.

The following shows the amount of wheat and flour, together with the amount of corn, on passage to United Kingdom, for ports of call or direct ports for the weeks mentioned:

	1890. Oct. 14.	1890. Oct. 7.	1890. Oct. 15.
Wh. & flour, qrs.	1,802,000	2,042,000	1,609,000
Corn, qrs.	448,000	536,000	359,000

The following shows the amount of wheat and corn on passage to the Continent for the past week, the previous week, and for the same week last year:

	1890. Oct. 14.	1890. Oct. 7.	1889. Oct. 15.
Wheat, qrs.	718,000	749,000	439,000
Corn, qrs.	137,000	116,000	137,000

India wheat to United Kingdom..... Qrs.
India wheat to Continent.....

The imports into the United Kingdom for the past week and the previous week and for same week last year:

	1890. Oct. 14.	1890. Oct. 7.	1889. Oct. 15.
Wheat, qrs.	334,000	443,000	288,000
Corn, qrs.	109,000	195,000	180,000
Flour bbls.	162,000	150,000	200,000

Wednesday brought a higher opening, on lighter offerings and shorts covering, and an easier closing, on longs realizing. October wheat closed at \$1.05½, with receipts 18,338, exports 26,157, and options 1,250,000 bushels. October corn closed at 56c., with receipts 105,848, exports 103,228 and options 536,000 bushels. October oats closed at 44½c., with receipts 114,672, exports 12,535, and options 435,000 bushels. Rye grain was nominally 69¢@70c., for No. 2 Western, 72¢@73c. for spot afloat, 74¢@76c. for State afloat, and 68¢@71c. for car lots on track. Barley was firm at 93c. for No. 1 and 88c. for extra No. 2 quoted in Oswego. Malt was firm at 75¢@82½c. for 2-rowed, 80¢@85c. for 6-rowed 85½¢@92c. for country-made Canada and 92½¢@ \$1 for city do. Mill-feed was in better demand at inside prices and 40-lb. and outside on 80-lb. Sales 40-lb. at 80c. and 80-lb. at 90c.; 100-lb. feed at \$23 in sacks; 40-lb. at \$17.50 in bags. Quotations: 40-lb. 80¢@82c.; 60-lb. 82½¢@85c.; 80-lb. 85c.; 100 lb. \$1.10.

Wheat flour was dull and unchanged on all but city mills for the West Indies. Exporters were 1¢@25c. below prices. Among the sales in New York were bakers' extras at \$4.75@4.80 for old springs; car-lots old patent do at \$5.75@6 for standard to fancy brands and \$5.25@5.75 for soft to fancy new in car lots, and \$5.50 nominally for line; of standard; city mills at \$5.10@5.15, delivery two weeks, \$5.10 bid at the close for spot; city mill patents, p. t., quoted \$5.75@5.85; new spring patent, to arrive, \$5.40@5.65, chiefly \$5.50; clear springs, \$4.75@5, and fancy at \$5.15; Southern at \$5.00, chiefly for straights. Receipts included 6,981 sacks and 36,566 barrels, and exports 7,664 sacks 34,722 barrels.

Rye flour was in good demand and steady at \$3.65@3.95 for fair to choice, and \$4.00@4.05 for fancy. Buckwheat flour was dull and easy at \$2.00@2.20 for new and fair to choice, and \$1.10 for sacks of unsound old. Corn products were a shade lower on bag stock, with barrels unchanged and demand slow on both. Western and Southern in barrels \$3@3.20; Brandywine \$3.20; granulated yellow \$3.25@3.50; granulated white \$3.50@4.00; coarse bag meal \$1.06@1.08; fine yellow \$1.18@1.20; fine white \$1.22 @ 1.25; Southern \$1.05 @ 1.60; brewers' \$1.60.

Thursday brought generally quiet and unchanged markets. October wheat closed at \$1.06½, with receipts 70,000, exports 2,934, spot sales 23,000, and options 2,720,000 bushels. October corn closed at 57½c., with receipts 377,000, exports 19,000, spot sales 81,000, and options 840,000 bushels. October oats closed at 46½c., with receipts 139,000, spot sales 153,000, and options 280,000 bushels. Wheat flour was steady and quiet, with receipts 25,000 and sales 74,000 barrels. Quotations included: Low extras \$4.60@4.10; city mills \$5.00@5.25; city mill patents \$5.35@6.15; winter wheat low grades

60¢@4.10; fair to fancy \$4.15@5.50; patents \$4.75 @ 5.75; Minnesota clear \$4.50 @ 5.25; straight \$4.85@5.65; Minnesota straight patents \$5.35@6.15; rye mixtures \$4.50@5.10; superfine \$3@3.85. The minor lines were firm, quiet and steady generally. The Minneapolis flour output last week was 151,400 barrels.

BUFFALO MARKETS.

Buffalo, N. Y., October 17, 1890.
The markets here were generally quiet. WHEAT—No spring wheat of consequence was sold to-day, but it is held about 1c. higher than at the close yesterday. Sales were reported of 5 cars No. 2 red at \$1.05, a few cars of extra No. 3 red at 99¢@1.00, and some extra No. 1 white at 90½¢@1.00. CORN—No. 2 yellow closed at 56½¢@57c, No. 3 do at 56½¢@56½c, No. 2 corn at 55½¢@55½c, and No. 3 do at 55c. A few sales were reported at these figures. OATS—The market was considerably excited toward the close, and holders were asking 48½¢@49½c for No. 3 white at the close, 48¢@48½c for No. 3 white, and 46½¢@47½c for No. 2 mixed on track. A good many were sold early at 46¢@47c for No. 2 white. BARLEY—Sales are made at the rate of 88¢@90c for No. 1 Canada; 86¢@88c for No. 2 do; 84¢@85c for extra No. 3 do, 8¢@83c for No. 3 do, 71¢@74c for No. 3 Western, 60¢@70c for extra No. 3 do, and 65¢@68c for No. 3 do. RYE—The market is entirely nominal at 70¢@72c for No. 2. OATMEAL—Akron, \$6.45; Western, \$6.20 per bbl; rolled oats, in cases, 72 lbs, 10. CORNMEAL—Coarse, \$1.00@1.05; fine, \$1.05@1.10; granulated 60 per cwt. MILL-FEED—City-ground coarse winter, \$16.00@17.50, per ton; fine do. \$17.50@18.00; finished winter middlings, \$19.00@20.00; coarse spring do, \$19.00.

FLOUR MARKET.

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Patents	\$6.25@6.50	Patents .. \$6.25@6.50
S't Bakers'	5.75	S't roller. . . 5.25@5.50
Bakers' cl'r.	5.25	Amber . . . 5.00@5.25
B. Rye mixt. . .	4.75	Crck'r flour. . 5.00@5.25
Low Grades . . .	3.50	Low grades. . . 3.25@3.50
Rye flour . . .	3.50@3.75	Graham. 4.75@5.00

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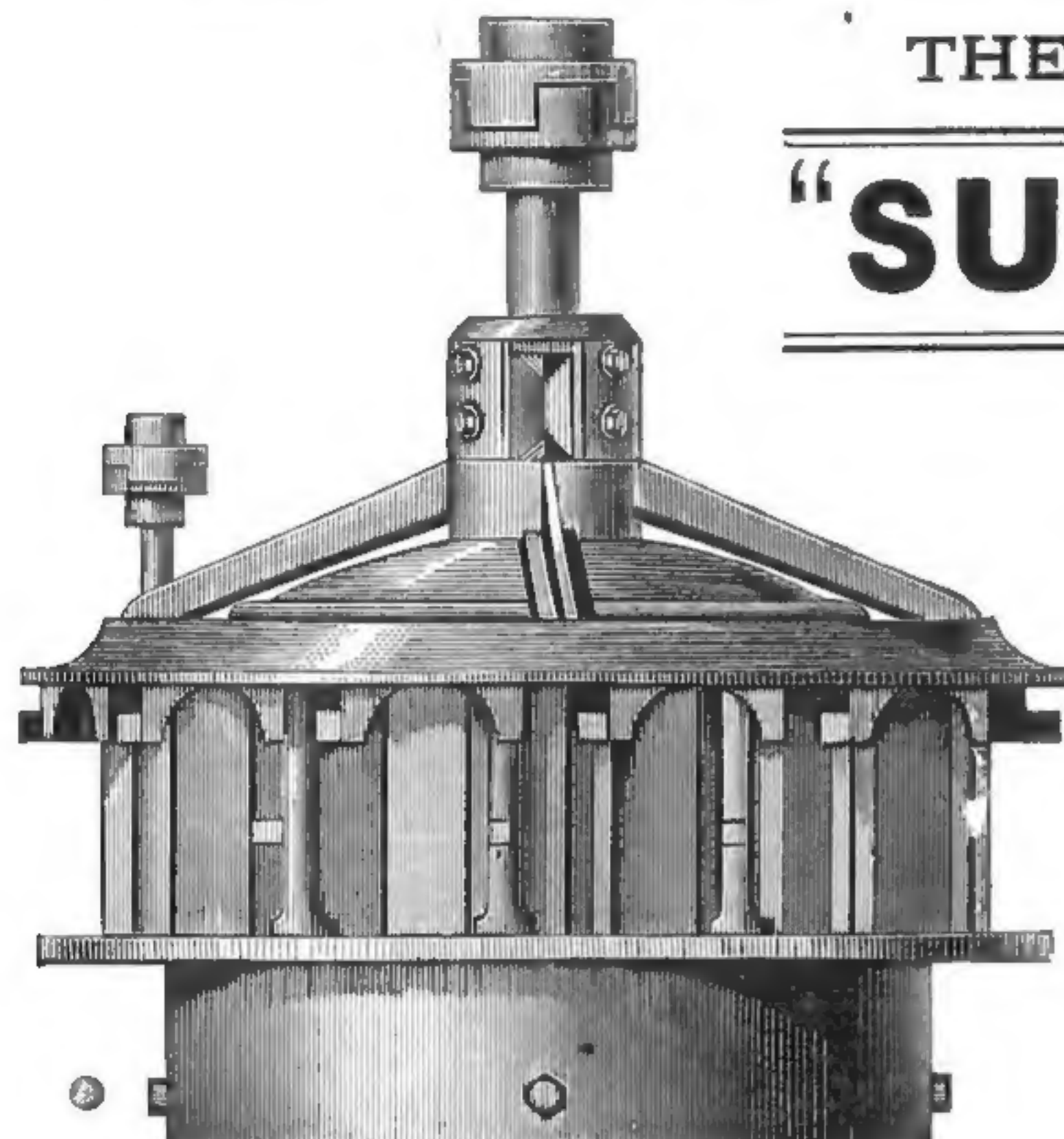
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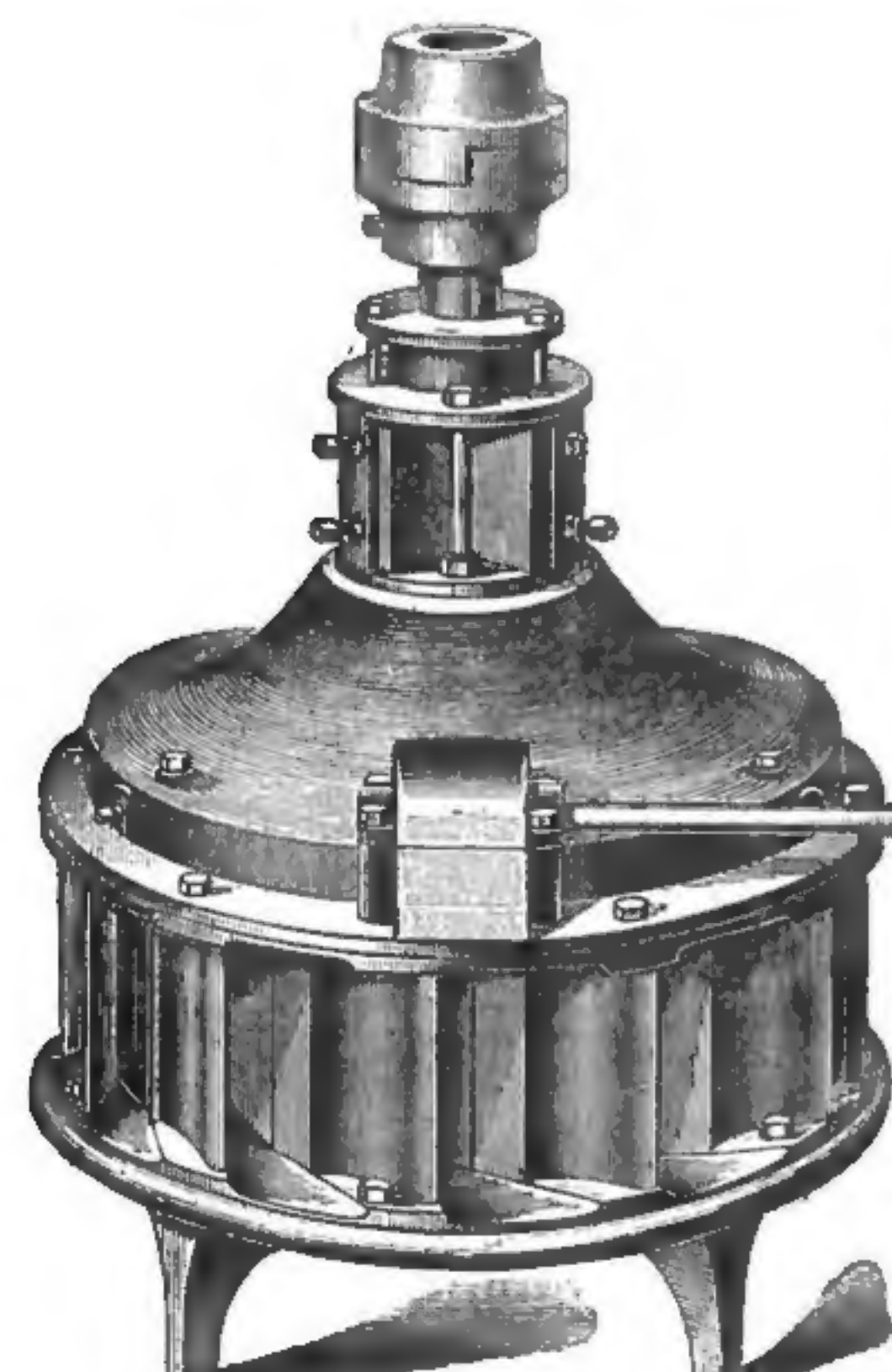
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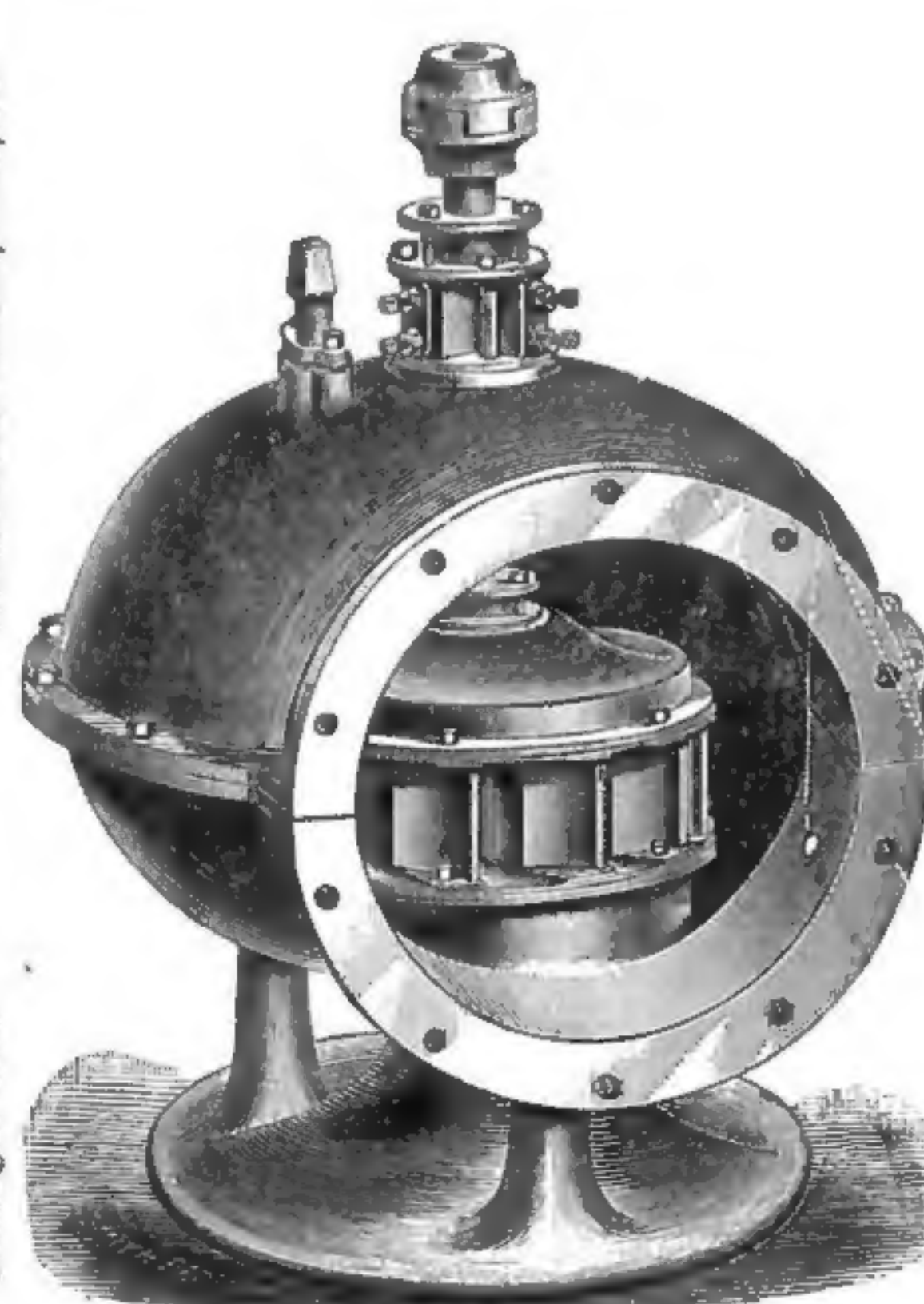
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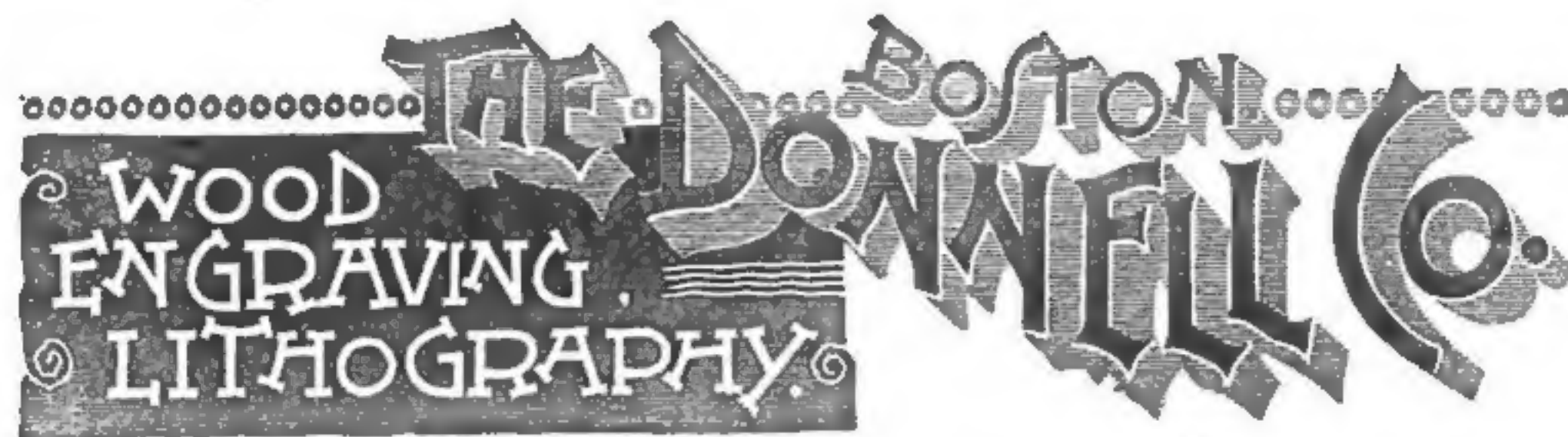
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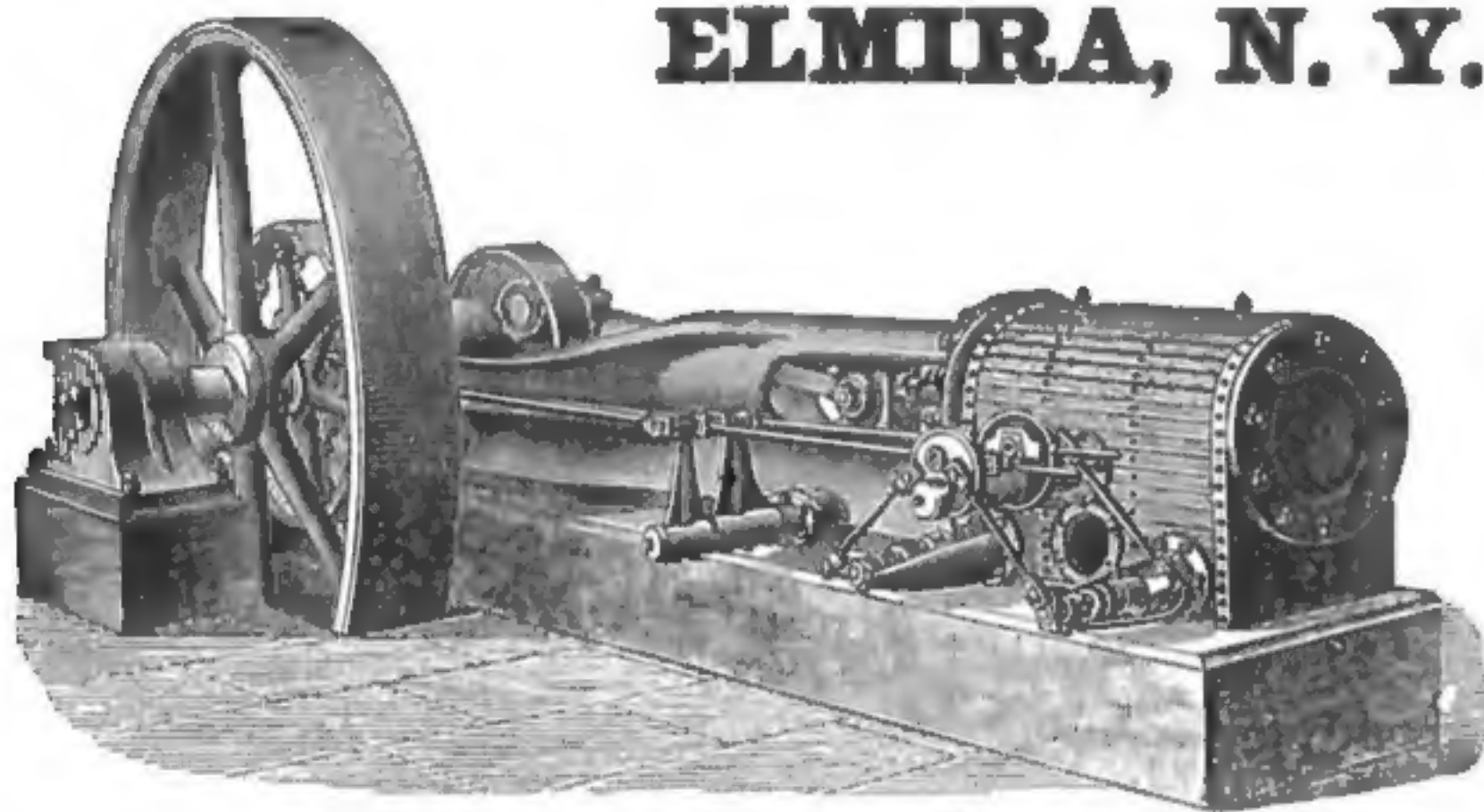


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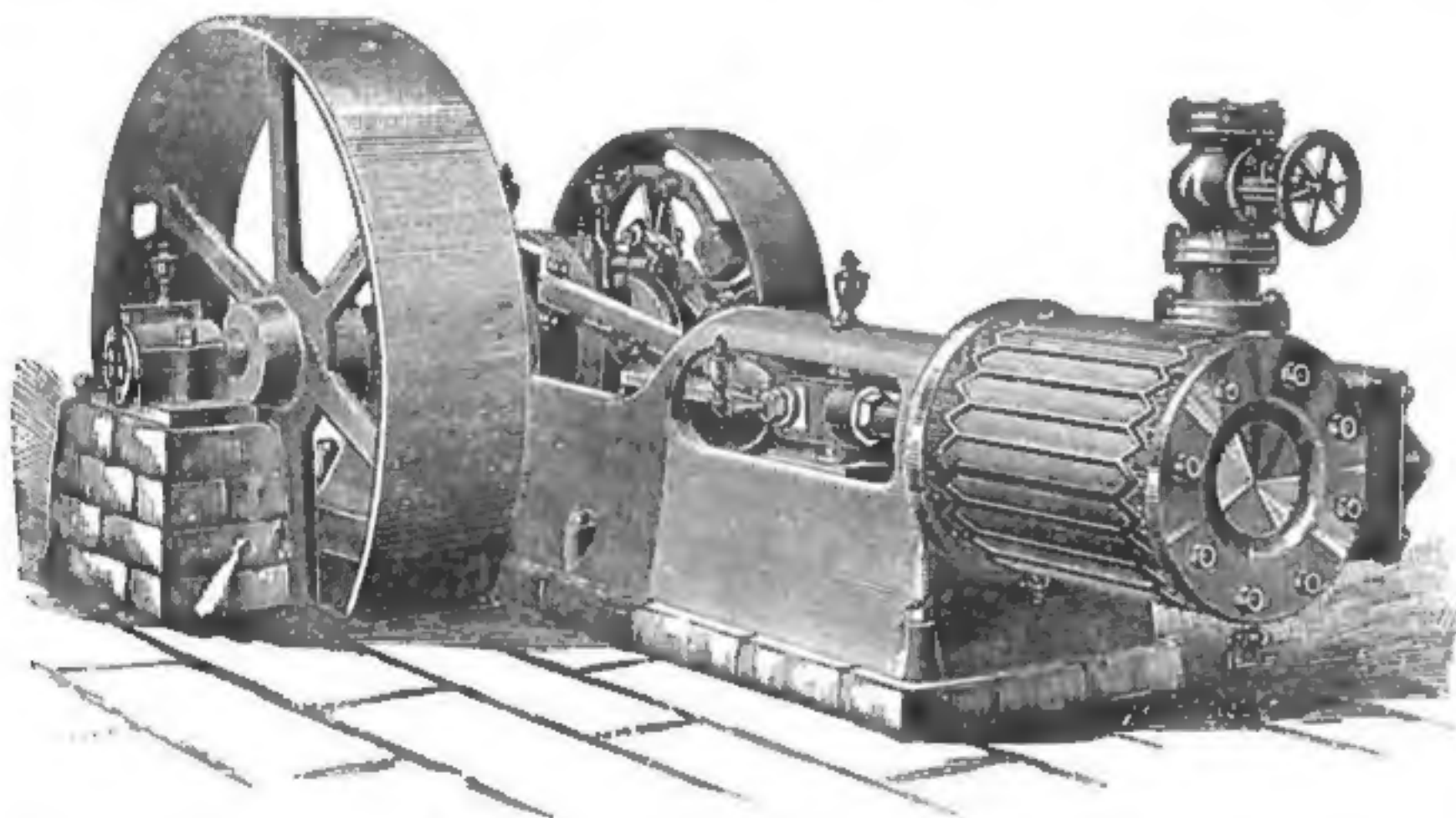
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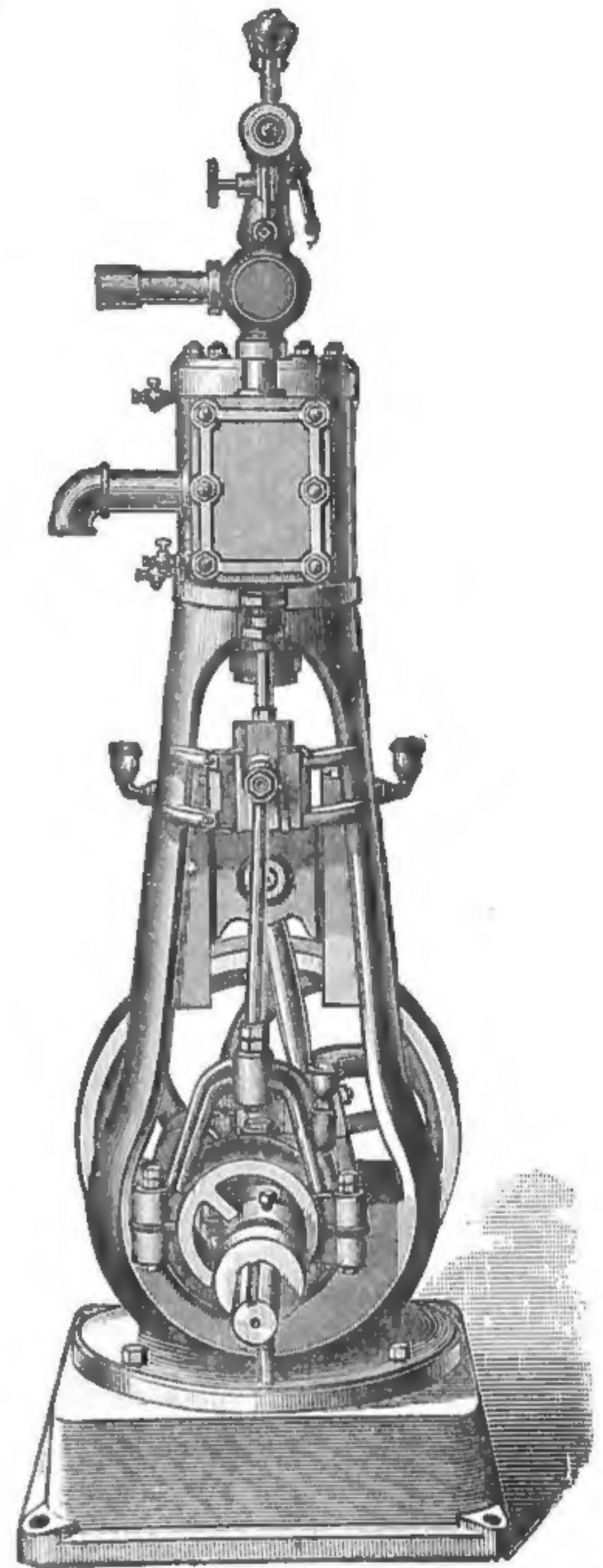
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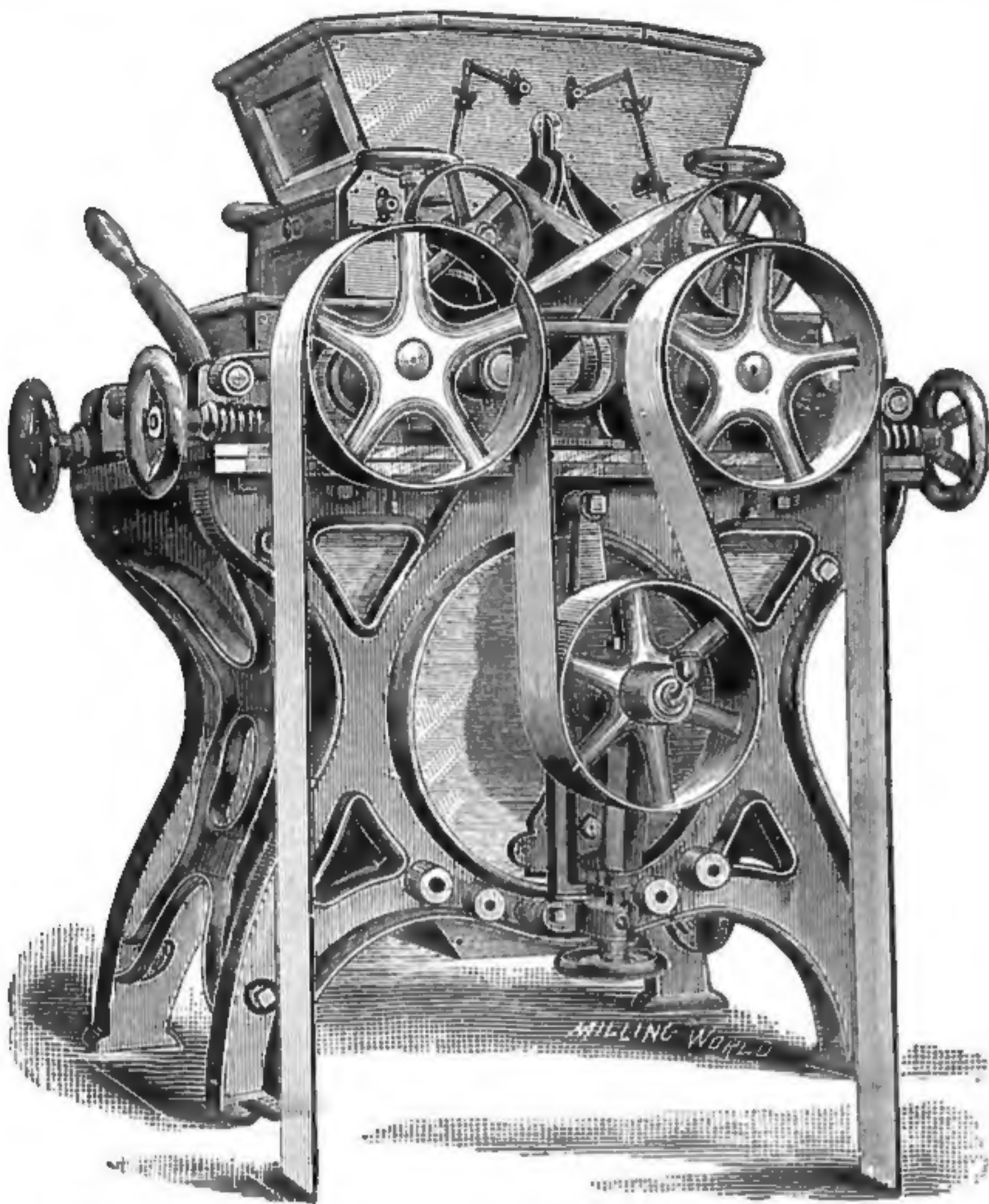


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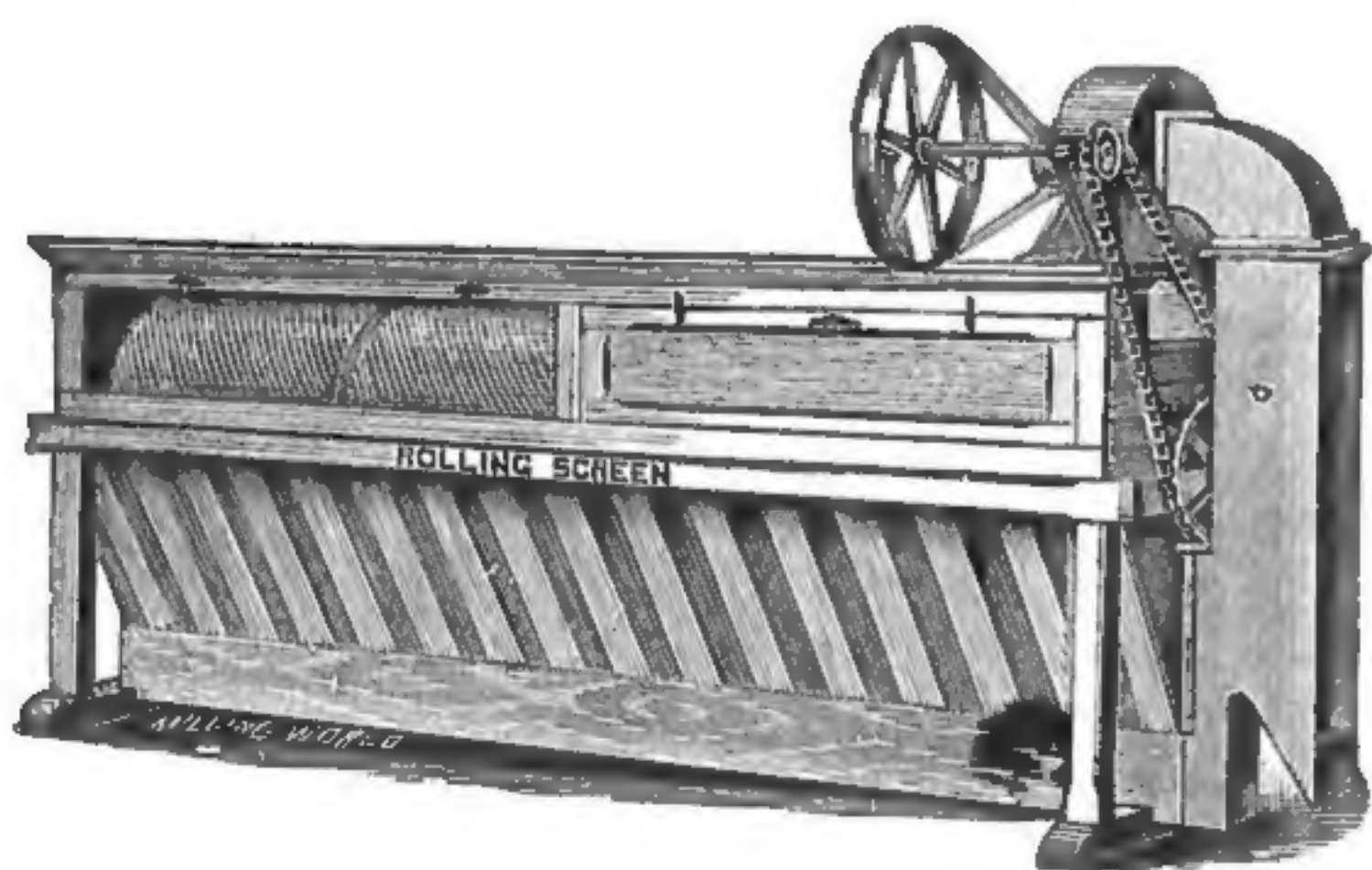
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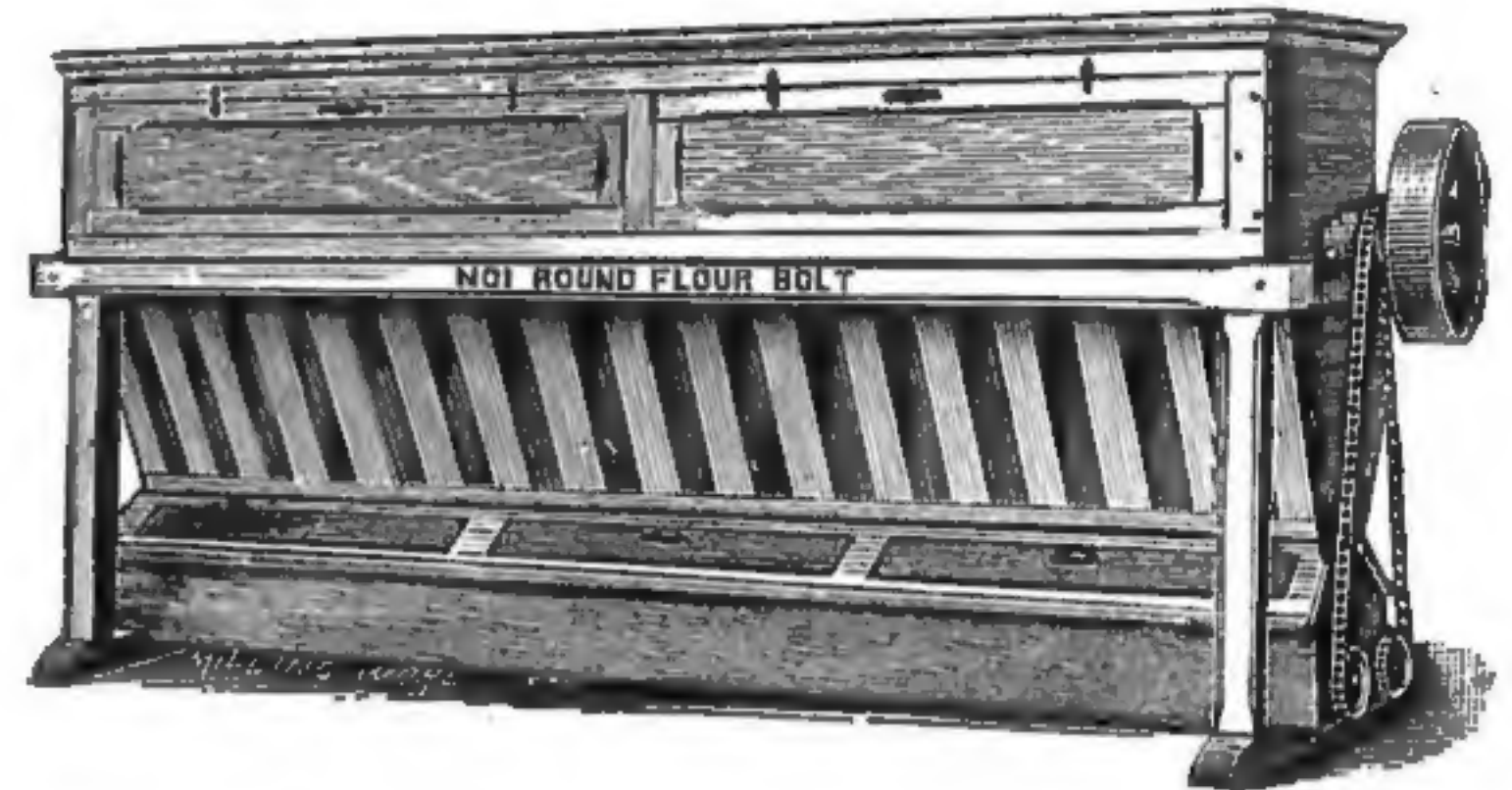
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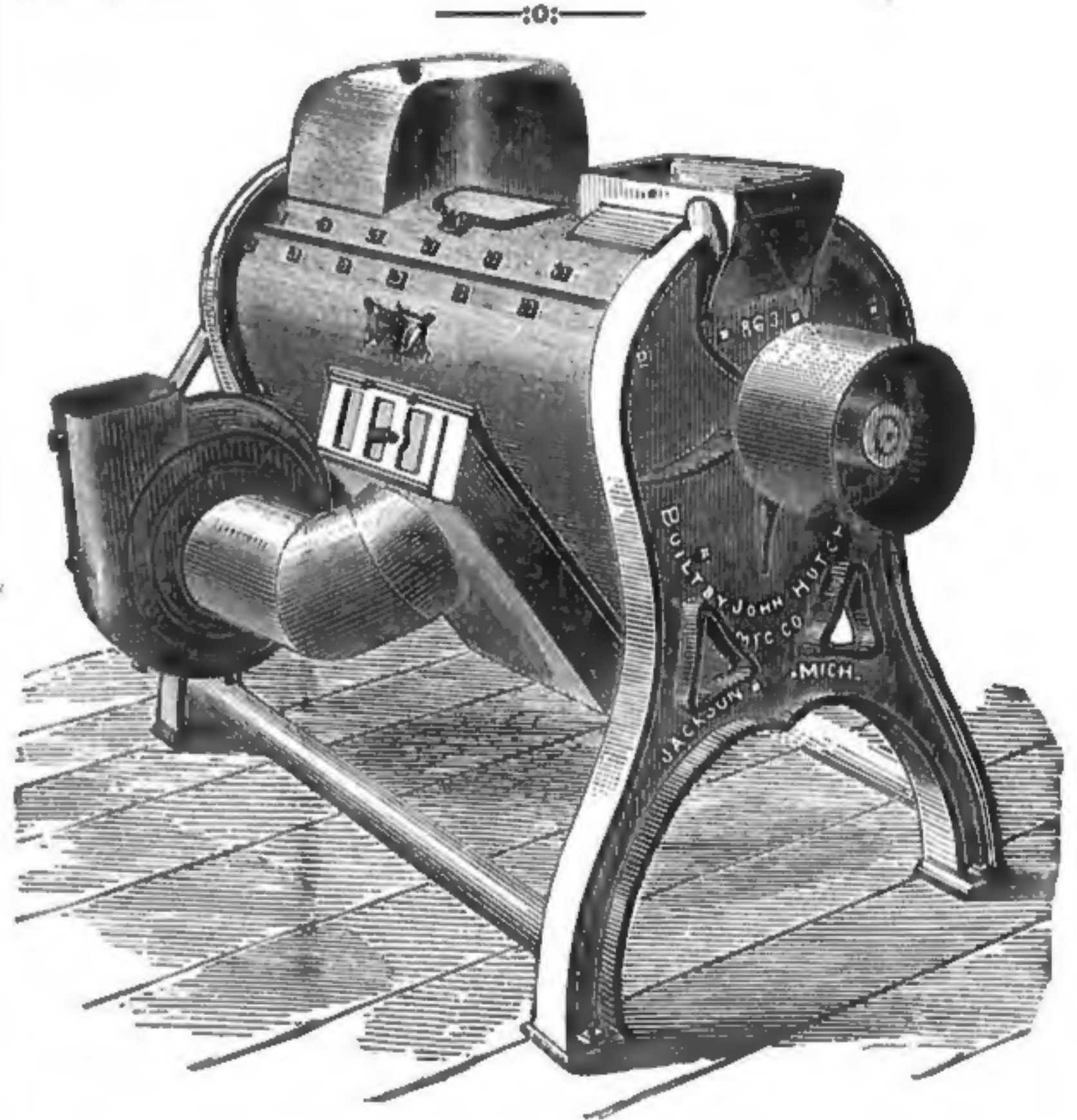


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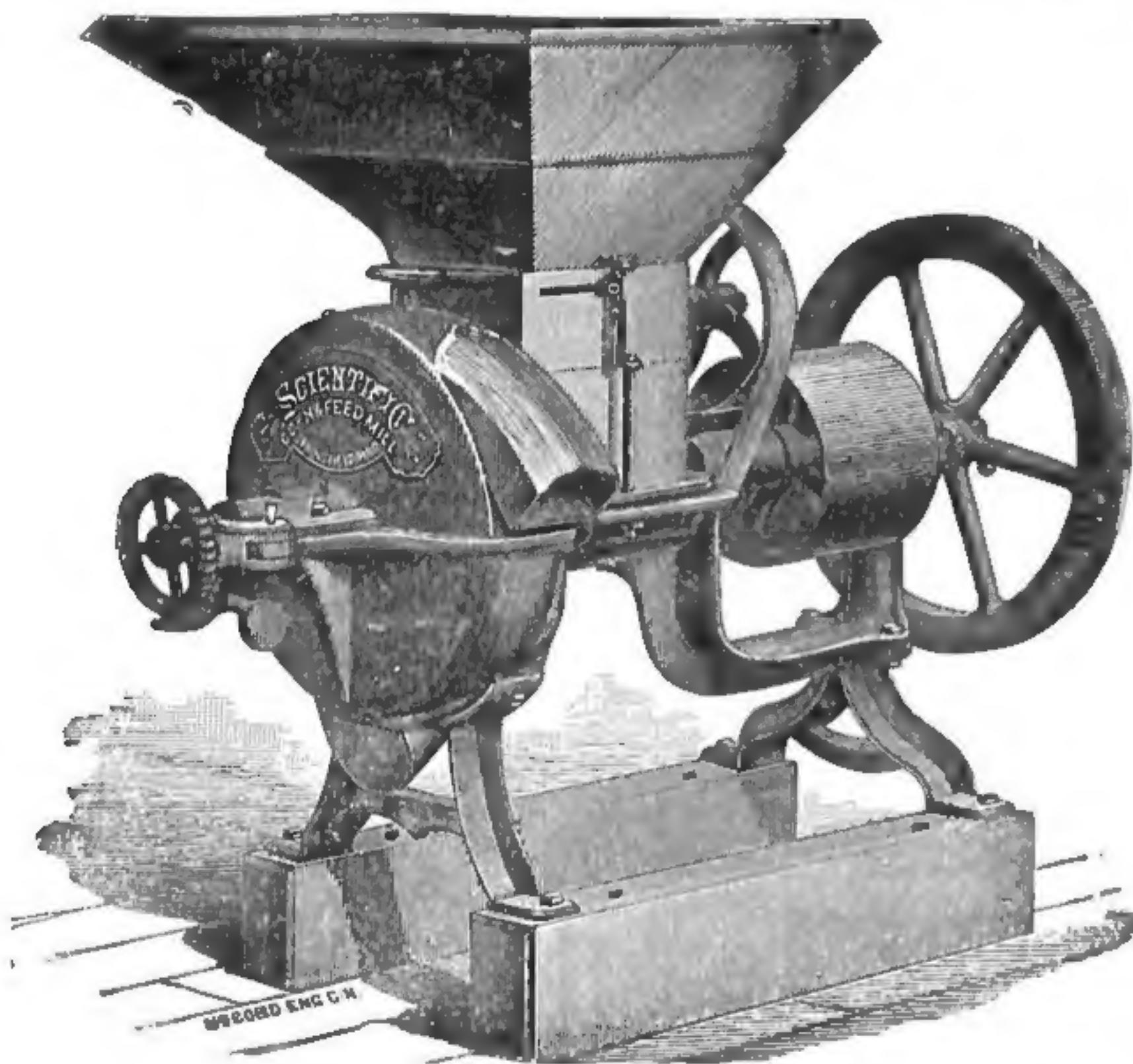
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